

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

VOLUME 2

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1 THE COURT: Be seated, please.

2 Plaintiff, are you prepared to call your next witness?

3 MR. SHEASBY: We are, Your Honor.

4 THE COURT: All right.

5 MR. SHEASBY: Do you want the rendition of exhibits
6 first or --

7 THE COURT: Yes. Let's do that. If there are
8 representatives of both parties prepared, let's read into the
9 record those items from the list of pre-admitted exhibits used
10 during yesterday's portion of the trial.

11 MR. BUNT: Chris Bunt for USAA. The following
12 Plaintiff exhibits were used yesterday: PX 097, PX 109, PX
13 157, PX 195, PX 196, PX 198, PX 594, PX 912, PX 1126, PX 1295,
14 PX 1746, PX 1377, PX 1761, and PX 1762.

15 THE COURT: Any objections to that rendition from
16 the Defendant?

17 MS. SMITH: No, Your Honor.

18 THE COURT: Does Defendant have a similar rendition
19 to offer?

20 MS. SMITH: We do, Your Honor.

21 THE COURT: Please proceed.

22 MS. SMITH: DX 1129, DX 1214, PX 107, DX 1110, DX
23 1376, DX 1450, and DX 1380.

24 THE COURT: Any objection from Plaintiff?

25 MR. BUNT: Your Honor, perhaps we -- perhaps we

1 could confer. I show one on their list, PX 107, that's not
2 listed on our list. I thought we had copies that matched up.

3 THE COURT: That's the only pre-admitted exhibit you
4 have an issue with, Mr. Bunt?

5 MR. BUNT: Yes, Your Honor.

6 THE COURT: If we can resolve this quickly, let's do
7 it. Otherwise, we'll take it up at the next recess.

8 MR. BUNT: That one's okay as well, Your Honor, PX
9 107.

10 THE COURT: All right.

11 MR. BUNT: I did have one other comment, Your Honor.
12 Were you finished, Ms. Smith?

13 MS. SMITH: I am, yes.

14 MR. BUNT: I know Your Honor has a standing order on
15 sealing exhibits the week after trial, but for the record we
16 would like to note that there are a number of these that we
17 want sealed. Is it okay if I read those in, the ones that we
18 would like sealed? Because they are internal business records
19 of USAA.

20 THE COURT: That's fine.

21 MR. BUNT: Okay. The sealed exhibits will be: PX
22 195, PX 196, PX 198, PX 594, PX 912, PX 1126, PX 1295, PX
23 1746, and DX 1110, DX 1129, DX 1149, DX 1214, DX 1376, DX
24 1380, and DX 1450.

25 THE COURT: Now, these are exhibits that you

1 anticipate will be used today at a time when you're going to
2 request the Court to seal the courtroom, or are you telling me
3 these have already been used?

4 MR. BUNT: Those have already been used, Your Honor,
5 my understanding.

6 THE COURT: All right. Is there anything further on
7 this from the Defendant?

8 MS. SMITH: No, Your Honor. I have no ability
9 respectfully to know which of those are confidential and which
10 are not or if there is any dispute as to those.

11 THE COURT: Review it, Ms. Smith, while we are
12 moving forward with the testimony. And if after reviewing it
13 there is a lack of agreement, you can raise it with me later.

14 MS. SMITH: I hope there is none, but thank you,
15 Your Honor.

16 THE COURT: I do, too. All right. I take it
17 there's nothing else we need to discuss before I bring in the
18 jury and proceed with the next Plaintiff's witness?

19 MR. SHEASBY: Not from Plaintiff, Your Honor.

20 MS. SMITH: No, Your Honor.

21 THE COURT: All right. Let's bring in the jury,
22 please.

23 (Whereupon, the jury entered the courtroom.)

24 THE COURT: Welcome back, ladies and gentlemen.
25 Please have a seat. We'll continue with the Plaintiff's case

1 in chief.

2 Plaintiff, are you prepared to call your next witness?

3 MR. SHEASBY: Plaintiff calls Mr. Bharat Prasad.

4 THE COURT: All right. If the witness will come
5 forward and be sworn, please.

6 (Whereupon, the oath was administered by the Clerk.)

7 THE COURT: Please have a seat on the witness stand,
8 sir.

9 THE WITNESS: Thank you, Your Honor.

10 THE COURT: All right, counsel. You may proceed
11 with direct examination.

12 BHARAT PRASAD, SWORN,

13 testified on direct examination by Mr. Sheasby as follows:

14 Q. Good morning, ladies and gentlemen of the jury.

15 Good morning, Mr. Prasad.

16 A. Good morning.

17 Q. Can you introduce yourself to the Judge Gilstrap and the
18 jury, please?

19 A. Good morning. My name is Bharat Prasad.

20 Q. Mr. Prasad, why are you testifying today?

21 A. I am one of the inventors on all the USAA patents in this
22 case.

23 Q. Mr. Prasad, can you remind the ladies and gentlemen of
24 the jury what families of patents are at issue in this case?

25 A. Yes. There are two generations of patents here: 2006

1 generation, which is the '432, the '681, and the '605 Patent;
2 and we have the 2009 generation, which is the '571 Patent.

3 Q. Mr. Prasad, what is your position at USAA?

4 A. I'm the principal technical architect in USAA's applied
5 research division.

6 Q. And what is applied research? What does it do?

7 A. We invent and we do research for commercializing
8 products.

9 Q. Are those separate functionalities at applied research?

10 A. Yes, they are two separately functionalities.

11 Q. What is your educational background?

12 A. So I have a Master's degree from Louisiana State
13 University in Baton Rouge. I also have an engineering degree
14 from India.

15 Q. How many United States patents have you been granted?

16 A. I have been granted 140 patents to date.

17 Q. And where do you live?

18 A. I live in San Antonio, Texas.

19 Q. Tell us about how you came to work at USAA.

20 A. So I was recruited by USAA. And when I saw the mission
21 of the company, serving the military and their families, I
22 knew that this was a place that I would want to work.

23 Q. Why is that?

24 A. So I come from a military background. My father was a
25 commanding officer in the Indian Air Force. He unfortunately

1 lost his life in active duty in the war against Pakistan, and
2 my mother had a really tough life trying to bring up me. I
3 was just 20 days old. My brother was two years old. And she
4 struggled throughout her life for managing the finances,
5 bringing us up, and the only support she had was my
6 grandparents.

7 So when I saw USAA trying to do a lot for the military
8 members and their families, and taking care of the spouses in
9 case of the loss of the life of the person, that told me that
10 this would be an ideal place for me to apply my technical
11 skills and help the military members for our country.

12 Q. What is the first subject you would like to talk to the
13 jury about?

14 A. So today I would like to talk about first on the history
15 behind the 2006 patents.

16 Q. And those are the first three patents we see on this
17 chart.

18 A. Yes, sir.

19 Q. What -- was there a goal that USAA focused on leading up
20 to the 2006 patents?

21 A. Yes. So we wanted to create a very simple way for our
22 members to deposit checks into their account. We wanted to
23 use everyday devices they would have in their homes to be able
24 to deposit a check easily. And we knew that devices would
25 change over the period of time, and as members bought new

1 devices, we wanted to make sure our technology could use it.

2 Q. Why did you choose consumer devices for your system?

3 A. We have military members who live all over the world, and
4 some of them are on ships trying to do banking and insurance
5 with USAA. So we wanted to make sure these devices are
6 affordable, easily accessible by the members. And also they
7 live paycheck to paycheck, and we cannot expect them to buy
8 costly equipment just to deposit a check.

9 Q. So I'm going to show you PX 0002. What is this?

10 A. This is one of the patents, the '605 Patent.

11 Q. And what family is this from?

12 A. The 2006 generation patent.

13 Q. I want to show you a passage from that patent. It's
14 column 4, lines 1 through 9. Does this passage relate to the
15 types of devices that USAA wanted to deploy in its system?

16 A. That is correct. It specifically prevents as imposing
17 specialized equipment such as commercial check scanners for
18 our members who could not afford them.

19 Q. And what type of devices does it describe using -- I
20 withdraw the question.

21 It makes reference to digital cameras. Do you see that?

22 A. Yes, sir.

23 Q. What is this document depicting?

24 A. This is actually a picture of a check scanner which is a
25 commercialized check scanner. Typically these are very costly

1 equipment something our members would not afford.

2 Q. The patent makes reference to digital cameras. What type
3 of digital cameras were you envisioning could be used?

4 A. We were envisioning scanners, home -- home digital
5 cameras that they would have in their homes, and smartphones.

6 Q. Why were you able to use everyday consumer devices in
7 your system that you created?

8 A. We had created a downloadable application from USAA that
9 could work on these devices and take control of them.

10 Q. Was it relevant if the camera was or was not physically
11 integrated in the same package as the general purpose
12 computer?

13 A. No, it was not. We envisioned both integrated and
14 separate systems to work with each other.

15 Q. Were there devices available at the time that had a
16 general purpose computer communicatively coupled with a
17 digital camera?

18 A. Yeah. At that time, they were called PDAs. Today we
19 call them smartphones, and they have a general purpose
20 computer on them. They have a camera for capturing images,
21 and they can also talk to the network to communicate.

22 Q. I'm now showing you Exhibit 3, which is the '681 Patent.
23 Do you recognize this?

24 A. Yes, sir.

25 Q. What family is this in?

1 A. This is the 2006 family again.

2 Q. And going back to the '605 Patent, I'm showing you figure
3 3 from the patent. What does figure 3 depict in terms of your
4 research?

5 A. So this figure --

6 Q. Actually let me withdraw the question.

7 What does figure 3 relate in terms of your inventing?

8 A. So this figure actually shows you what is inside a
9 smartphone, the internal components of a smartphone. So you
10 can see that 302 which talks about processing unit, that is
11 the general purpose processor. When you see 307 talking about
12 image capture apparatus, that is the camera and the lens. And
13 communication channel in -- communication connections in 308,
14 that is the network connectivity.

15 Q. Did USAA use designs -- use the designs in figure 3 in
16 its system?

17 A. Yes.

18 Q. What designs that are used in USAA's system are reflected
19 by figure 3?

20 A. So we use the smartphones today for capturing a check,
21 and that is this design.

22 Q. Do smartphones in USAA's system include general purpose
23 computers?

24 A. Yes, they do.

25 Q. And what smartphones are used in USAA's system today?

1 A. Can you repeat the question?

2 Q. Are iPhones used in USAA's system?

3 A. Yes. We use several types of devices, including the
4 iPhone.

5 Q. Are Android devices used in USAA's system?

6 A. Yes, they are.

7 Q. Did you contemplate that the device could be directly
8 connected to the wireless network?

9 A. We contemplated both that the device could directly
10 connect to the network and also go to the network through
11 connectivity through another system.

12 Q. You spoke about the downloaded application that USAA
13 employed. What did this downloaded application do?

14 A. So the downloaded application that USAA created took over
15 the entire deposit process, and it took control of the camera
16 to capture the check image.

17 Q. What's ran on the downloaded application?

18 A. So there is an operating system on these devices, and the
19 operating system would run the application.

20 Q. What types of Windows operating systems were you familiar
21 with in 2006?

22 A. For the handheld, I'm familiar with the Windows mobile
23 operating system. Windows also -- Microsoft also provided the
24 Windows desktop and the Windows cellular operating systems.

25 Q. What version of the Windows mobile was in existence in

1 2005?

2 A. At that time it was Windows mobile 5.0.

3 Q. I want to show you a passage from the '605 patent, and
4 this is column 10, lines 23 to 27. What is this passage
5 speaking about?

6 A. It is talking about that downloaded component that USAA
7 had created, and it could take control of the image
8 generation, which is captured in the check image, and the
9 diluted process, which is the deposit process.

10 Q. When you were commercializing your system, the system in
11 2006, did that use a downloaded application?

12 A. Yes, it did.

13 Q. So I'm now going to go back. Did you prepare some
14 demonstrations of how your downloaded application works
15 currently?

16 A. Yes, sir.

17 Q. So yesterday the ladies and gentlemen of the jury saw a
18 presentation -- well, I'm just going to show this. Let me go
19 back.

20 MR. SHEASBY: Can you play that, Mr. Huynh?

21 Q. (BY MR. SHEASBY) So can tell us what's happening here?

22 A. Here taking the image of the front of the check, we
23 display the check image. Now we are taking the back of the
24 check and displaying the back of the check image. And in the
25 end, the user gets to approve.

1 MR. SHEASBY: And, Mr. Huynh, can we play this one
2 as well, please?

3 THE WITNESS: Here again we are taking the front of
4 the check and display it. And here we are capturing the back
5 of the check image and displaying it.

6 Q. (BY MR. SHEASBY) Does that accurately reflect how USAA's
7 system currently operates?

8 A. Yes, sir.

9 Q. Now, you showed a laptop and a smartphone. Were they
10 running the same application?

11 A. They were running the same application, correct.

12 Q. How is that possible?

13 A. Because both the smartphone and the laptop internally are
14 the same configuration.

15 Q. What do you mean, they are the same configuration?

16 A. So the diagram that you saw earlier talking about general
17 purpose computer, a camera, and the connectivity to the
18 network, essentially the laptop and the phone are exactly the
19 same in that sense.

20 Q. You were here in opening when PNC claimed your patent did
21 not teach the public how to build a remote deposit system
22 using a digital camera.

23 A. Yes, sir.

24 Q. Did you design specific techniques that ensure the system
25 works with digital cameras?

1 A. Yes, we did.

2 Q. Did you disclose those techniques in your patents to the
3 United States Patent Office?

4 A. Yes, sir.

5 Q. Can you give us an example of how USAA addressed the
6 challenges that exist with digital cameras?

7 A. Yes. So one of the techniques we created was to give
8 specific instructions to the user on how to position the
9 camera with respect to the check, and we give detailed
10 explanation on that.

11 Q. And if you turn to your '681 Patent, column 7, lines 50
12 through 65, what are these? What's here?

13 A. So this is actually explaining how a digital photograph
14 can be captured through the digital camera. So it's talking
15 about how to orient the check, orient the camera with respect
16 to the check, and how far and what's the angle in which to
17 position the camera to capture the check image.

18 Q. It makes reference to graphical illustrations as well.
19 What are graphical illustrations?

20 A. So in the earlier video, you saw some of the screens that
21 is walking the user through how to do the deposit. Those are
22 the graphical illustrations.

23 Q. In your first commercial system for the iPhone, did you
24 use these instructions in graphical interface?

25 A. Yes, sir.

1 Q. Do the instructions provided in the patent address skew
2 and warp?

3 A. Yes, it does. So if you look at the orientation of the
4 camera with respect to the check image, that address is
5 skewing. And if you look at the angle of the camera and the
6 distance, it is warping.

7 Q. Did you address -- did you design any other techniques
8 that you disclosed in the patent?

9 A. Yes. So we also created a technique of cropping, that
10 is, extracting the check image from the background image.

11 Q. Did you implement the cropping algorithm in your patent
12 in your laboratory and did it work?

13 A. We did implement it and it worked.

14 Q. Are there other techniques you created and described in
15 the patent to ensure successful deposit with digital cameras?

16 A. Yes. We also created techniques for image analysis. We
17 wanted to make sure the check is of good quality so that we
18 can deposit it. So we created image algorithms to actually
19 look at the image's quality and accept it.

20 Q. And does this -- when does this occur? When does this
21 analysis occur?

22 A. So this happens when the user is trying to deposit the
23 check in the session. So when the user is trying to deposit
24 the check, all of these things happen at the same time.

25 Q. Is there a phrase that's used to describe that?

1 A. It is called real time.

2 Q. And does this passage 2:33 to 55 describe those
3 techniques?

4 A. Yes, sir, it does.

5 Q. When did USAA create -- so we've spoken about invention.

6 I now want to speak a little bit about your commercial
7 development work. May I do that?

8 A. Sure.

9 Q. When did USAA create a commercial system that could be
10 used with digital cameras?

11 A. A commercial system for digital cameras came in 2009.

12 Q. That was the Deposit@Mobile system?

13 A. That is correct.

14 Q. In 2006, did the Deposit@Home system, although it was not
15 advertised, did it work with digital cameras?

16 A. Yes. So 2006 was for digital cameras. We did not
17 optimize it for digital cameras at that time.

18 Q. I want to show you a document. This is PX 1527. What is
19 this document?

20 A. This is a document Mr. Oakes is actually sending to his
21 leadership and also all of us on the core team. He's talking
22 about how this technology is not just changing USAA, but also
23 revolutionizing the banking industry. And he's talking about
24 how if USAA puts its mind to it, we can really do anything.

25 Q. So USAA launched its original system that was optimized

1 for scanners but worked with digital cameras in what month and
2 year?

3 A. In June of 20006.

4 Q. And just to give some context, when is this email?

5 A. This is, again, early June of 2006.

6 Q. So it's a couple of weeks before the launch?

7 A. A couple of weeks before the launch, yes.

8 Q. And Mr. Chuck Oakes is the leader of applied research.

9 Is that correct?

10 A. Yes, sir.

11 Q. I want to show you another email. This is PX 0041. This
12 is another email from Mr. Oakes. What is this email?

13 A. This is an email Mr. Oakes is sending his leadership and
14 message that a user has actually used a webcam, a digital
15 camera, to deposit a check into USAA account.

16 Q. So he says something at the top. He said, "We were in
17 inventing mode last year." Do you see that?

18 A. Yes, I see that.

19 Q. Is inventing mode different from commercialization mode
20 in your group?

21 A. Yes, it is.

22 Q. And so is this email talking about inventing mode or
23 commercializing mode?

24 A. This email is talking about the commercial product having
25 been able to use a digital camera for an actual deposit.

1 Q. So were you here yesterday when PNC's counsel represented
2 to the jury in opening that the original commercial system
3 couldn't work with digital cameras?

4 A. Yes, I was.

5 Q. Was that statement accurate or inaccurate when it was
6 made to the jury?

7 A. It was inaccurate.

8 Q. Do you see at the bottom of this email, Mr. Oakes says,
9 "I don't believe we are going to advertise this capability"?

10 A. I see that.

11 Q. Mr. Oakes knew that the system in 2006 had the capability
12 to use digital cameras?

13 A. Yes, sir.

14 Q. Was Mr. Oakes known to you to be a liar or to overstate
15 things?

16 A. No, sir.

17 Q. Now, what type of digital camera did the member use in
18 this event that occurred in October of 2006 with the
19 commercial system?

20 A. The member used one of the cheapest available cameras
21 which was a webcam connected to his computer.

22 Q. So you mean those little orbs that they used to give away
23 free?

24 A. Yes, that's exactly it.

25 Q. And did you consider it relevant that a member used such

1 a cheap digital camera?

2 A. I did. It told us that our system could work with any
3 type of a camera.

4 Q. Did you provide instructions to the member so that they
5 could use it with a digital camera?

6 A. No, sir, we did not.

7 Q. Did you optimize it to be used with a digital camera?

8 A. No, sir.

9 Q. Did it work with digital cameras?

10 A. Yes, it did.

11 Q. I'm going to show you another document. This is PX 1126.
12 Do you recognize this commercial document?

13 A. Yes, sir. It's a commercial design document USAA
14 created.

15 Q. And what's the date of this document?

16 A. It is dated August 14th, 2006.

17 Q. And putting that in context, when did you file your
18 patent application?

19 A. We filed our application for patent in October 31st,
20 2006.

21 Q. And Mr. Oakes described that you did the invention phase
22 in what year?

23 A. Invention phase was in 2005.

24 Q. And I want to show you a page of this document. This is
25 figure 3. What does this figure depict?

1 A. This is depicting how the system was working at that
2 time. It could actually get images from digital cameras,
3 scanners, or any kind of image source.

4 Q. And if you turn to the last page of the document, it
5 says, TWAIN supported scanners/digital cameras. Do you see
6 that?

7 A. Yes, I see.

8 Q. Did your system support TWAIN digital cameras?

9 A. Yes, it supported scanners and digital cameras.

10 Q. Now, I want to show you another document. This document
11 has a create date of 3/9/2007. What does the create date in
12 USAA's records reflect?

13 A. It reflects the document was created before but no later
14 than 3/9/2007.

15 Q. And what does this document depict?

16 A. This is a requirements document. So this is exactly how
17 the system was working, and we are trying to extend it to the
18 Apple Macintosh system.

19 Q. So in 2006, does this reflect how the system actually
20 worked?

21 A. Yes, sir.

22 Q. And it says, any scanner and any camera device.

23 A. I see that, yes.

24 Q. And it also says JPEG.

25 A. Yes.

1 Q. Was the system designed to use JPEG images?

2 A. Yes, it was.

3 Q. From when?

4 A. From 2005.

5 Q. Why did you design it for JPEG images?

6 A. So JPEG is one of the most common standards all image
7 capture devices support whether it is home scanners, digital
8 cameras, or the smartphones.

9 Q. What picture format were digital cameras, including those
10 in phones, generating in 2006?

11 A. JPEGs.

12 Q. What format do digital cameras and phones in USAA's
13 system today use?

14 A. JPEGs.

15 Q. Are there records confirming that the customers used this
16 original system with digital cameras?

17 A. Yes, sir.

18 Q. I want to turn back to the email announcing that the
19 member had used a webcam for deposit.

20 The next part of this email is from Rickey Burks. And
21 Rickey Burks says, "We will need to determine if we should
22 allow devices other than scanners, and if so, what the
23 risks/issues will be."

24 First of all, who is Rickey Burks and what is he saying?

25 A. Mr. Burks was our chief technology officer, and we

1 reported to him. He's saying here whether we should as a
2 business allow commercializing this product to our members.

3 Q. Did you inform Mr. Burks that you had built the system to
4 work with digital cameras?

5 A. Yes, sir.

6 Q. Did he allow you to continue to run it with members using
7 digital cameras?

8 A. Yes, he did.

9 Q. Did you advertise it?

10 A. We did not.

11 Q. One of the next passages in this email is from Michael
12 Luby to someone named Troy and Ryan. So the record is clear,
13 who are Troy and Ryan?

14 A. Mr. Ryan Barth and Mr. Troy Huth, they were from the
15 business side in banking at USAA.

16 Q. And he's saying who should run with it. What does he
17 mean by that?

18 A. So Mr. Luby is saying that the business should take a
19 look at this technology we had already invented to see if we
20 can make it a commercial product for the bank.

21 Q. At the time he was writing this email, did the business
22 know the full capabilities you had already built into the
23 system?

24 A. No, they did not.

25 Q. Did you inform them?

1 A. Yes, we did.

2 Q. At the end of this email or second from the end, there's
3 an email from Rickey Burks to Chuck Oakes, and he says, "We
4 need to get this into the queue and see where it falls from a
5 priority standpoint."

6 What is this discussing?

7 A. So this is discussing the commercialization development
8 of the product. And once the business gives the go-ahead, we
9 will put this in the queue of things that USAA was doing for
10 its members.

11 Q. You were here in opening. Is that correct, Mr. Prasad?

12 A. Yes, sir.

13 Q. Did PNC show this email to the jury in opening? And if
14 you don't know --

15 A. I don't remember, sir.

16 Q. Okay. So this is another document. It's DX 1129. And
17 it says, Short BRI [sic] brief?

18 A. Correct.

19 Q. So what is a short BRI [sic] brief?

20 A. It's a short BIR brief. The B-I-R stands for business
21 innovation research. This is a business document.

22 Q. So where we talked previously about invention and then
23 commercial research, where does this document fall in that
24 range?

25 A. This is a commercial research part of it.

1 Q. And what was the state of the system at the time this
2 document was being circulated amongst the business?

3 A. The system already worked with digital cameras.

4 Q. Was it optimized for digital cameras?

5 A. No, it was not.

6 Q. Were you advertising it to customers?

7 A. No, we were not.

8 Q. And what was the business deciding in this document?

9 A. The business is trying to understand whether they should
10 turn this on for our members as a commercial product based on
11 the invention we had already created.

12 Q. And by turning it on, you mean advertising and
13 optimizing?

14 A. That is correct.

15 Q. I'm going to show you another slide, another set of
16 slides. So would you be involved in providing some of the
17 information and drafting parts of this document?

18 A. Yes, sir.

19 Q. And when it talks about enabling check deposit and
20 viability for USAA, do you remember when Mr. Stone suggested
21 in opening that that was an acknowledgement that the system
22 didn't work with digital cameras?

23 A. I remember that.

24 Q. Was he being accurate or inaccurate when he made that
25 representation to the jury?

1 A. That was inaccurate.

2 Q. What is this document actually discussing?

3 A. This is talking about the business enablement and the
4 business viability on USAA-created product for its members for
5 depositing checks through digital cameras.

6 Q. Now, in 2007 -- if we can go back. In early 2007, what
7 was the business's ultimate conclusion as to whether to launch
8 a commercial product that was optimized for digital cameras in
9 mobile phones?

10 A. So in 2007, early 2007, our members did not have those
11 type of cameras and smartphones, so we decided not to turn it
12 on at that time.

13 Q. Did the business ultimately revisit this decision?

14 A. So in June of 2007, when Apple released the iPhone, we
15 found that it became very popular with our membership. And so
16 the business eventually revisited and said, let's start a
17 commercial product for the iPhone.

18 Q. What was the member reception to the optimized version of
19 the app for the iPhone?

20 A. After the release of the app, we found that it was the
21 number one banking app in Apple's iTunes store.

22 Q. What is the next subject you will discuss with the ladies
23 and gentlemen of the jury?

24 A. I would like to discuss about the inspiration behind the
25 '571 Patent.

1 Q. How did the '571 Patent improve on the system?

2 A. So it provided three very critical capabilities. One was
3 the system would actually monitor the image it was seeing on
4 the video to say whether the image is of good quality and then
5 capture it.

6 It also provided corrective feedback -- continuous
7 feedback to the member to position the check and the camera
8 accordingly for success.

9 At the same time it allowed the system to automatically
10 capture the check instead of the user doing it.

11 Q. Did your patent contemplate that the user, after
12 benefiting from the first two steps, may manually capture the
13 image?

14 A. Yes, we contemplated that as well, yes.

15 Q. What was the impact on the iPhone after introducing the
16 '571 Patent technology?

17 A. If you look at three months before that technology and
18 the release of auto-capture and three months after, we saw
19 there was a nine percent drop, absolute drop, in failure
20 rates, which accounted to about 53 percent improvement.

21 Q. Did Android show the same performance improvement
22 initially?

23 A. Initially it did not because Google had an issue with the
24 operating system for Android phones. And once they fixed it,
25 we saw the same kind of improvement.

1 Q. Did you continue to expand on the '571 Patent?

2 A. Yes, sir. In 2016 we added ways to enable voice feedback
3 to the user to auto-capture.

4 Q. What was the reason for adding voice feedback?

5 A. We just wanted to make sure that our members, many of
6 whom are also visually impaired, could use the system. We
7 wanted to make sure they could still use the capabilities that
8 auto-capture provided but hear all the feedback via audio.

9 Q. What is the next subject you would like to discuss with
10 the jury?

11 A. I'd like to walk them through the -- the process of the
12 patent application itself for the 2006 patents.

13 Q. And when were the 2006 patent applications filed?

14 A. October the 31st, 2006.

15 Q. And what was the state of the USAA project on October
16 31st, 2006?

17 A. It was already commercially launched to our members.

18 Q. You have over 140 patents. Is that correct?

19 A. Yes, sir.

20 Q. Other than the patents at issue in this case, can you
21 think of any other instance in which you had already launched
22 a commercial product at the time you filed the patents?

23 A. No, sir, I can't.

24 Q. Do you have an understanding as to why it's the general
25 practice at USAA to file patents before the commercial product

1 is launched?

2 A. Yes, I do.

3 Q. Why?

4 A. There's a risk that we might lose the patents if we don't
5 file for it after commercialization soon.

6 Q. Are you instructed by USAA to file before
7 commercialization if at all possible? Actually I withdraw the
8 question. Let me ask it this way.

9 Does this slide depict some of the patents in the 2006
10 family?

11 A. Yes, it does.

12 Q. And it lists the '136 Patent. Is that correct?

13 A. Yes, it does.

14 Q. And the '638 patent. Is that correct?

15 A. Yes, it does.

16 Q. And the '598 patent?

17 A. Yes.

18 Q. And in the three underlined patents are the patents that
19 PNC's product that's accused of infringement in this case is
20 allegedly using. Is that correct, sir?

21 A. I believe so.

22 Q. Are you familiar with the history of the Patent Office's
23 examination of your 2006 patents?

24 A. Yes, I am.

25 Q. Did you gain this familiarity before the start of this

1 lawsuit?

2 A. Yes.

3 Q. Do you participate in the prosecution of your 2006 patent
4 family?

5 A. Yes, I do.

6 Q. Do you recognize PX 101?

7 A. Yes.

8 Q. What is this?

9 A. This is the patent prosecution record for the '605
10 Patent.

11 Q. And what is the patent prosecution record?

12 A. So it's an official record of the U.S. Patent Office on
13 the investigations they conduct before granting a patent.

14 Q. Did the Patent Office expressly discuss whether the
15 claims of the '605 Patent were properly disclosed in the
16 original application?

17 A. Yes, sir.

18 Q. What did they conclude?

19 A. They concluded that all the claims were supported by the
20 original application we filed in October of 2006.

21 Q. What are we seeing here on this page? It's PX 101.302.

22 A. This is a document we are submitting from USAA to the
23 U.S. Patent Office claiming the priority date of October 31st,
24 2006, for all the claims.

25 Q. And if you can turn to -- I'm going to now show you

1 another slide. What is this depicting? This is page 251.

2 A. This is the response coming back from the U.S. Patent
3 Office to USAA agreeing that the date of October 31st, 2006,
4 is allowed for all the claims.

5 Q. And what does priority date -- establishing the priority
6 date mean?

7 A. In my understanding, the establishing the priority date
8 is when the invention and the claims have been created on that
9 date.

10 Q. Did you disclose to the Patent Office in your 2006 patent
11 family that you waited to launch the iPhone app mobile phone
12 system until 2009?

13 A. Yes, we did.

14 Q. When Mr. Stone told the ladies and gentlemen of the jury
15 that the Patent Office didn't know that you commercially
16 developed the iPhone app after 2006, was he being accurate or
17 inaccurate to the jury?

18 A. That was inaccurate.

19 Q. Do you recognize PX 100?

20 A. Yes, I do.

21 Q. And this is the patent prosecution record for the '681
22 Patent. Is that correct?

23 A. That is correct.

24 Q. Did the Patent Office determine whether the claims in the
25 '681 Patent were properly disclosed in the 2006 application?

1 A. Yes, they did.

2 Q. What did they conclude?

3 A. They concluded that all the claims of the '681 Patent
4 were supported by the original 2006 October application.

5 Q. What's the third member of the 2006 patent family that's
6 asserted as to the PNC product at issue in this case?

7 A. It is the '432 Patent.

8 Q. Did USAA tell the Patent Office that it was entitled to
9 the 2000 [sic] filing date for the '432 patent?

10 A. Yes, they did.

11 Q. And what does PX 1173105 reflect?

12 A. This reflects that the priority date of October 31st,
13 2006, applies to all the claims in the '432 Patent.

14 Q. What is the next subject you would like to discuss?

15 A. I wanted to discuss about the commercialization of our
16 products themselves at USAA.

17 Q. Okay. What consumer devices did you use for the original
18 prototype of your system for commercial purposes?

19 A. So I wanted to make sure the devices used were affordable
20 by our members, they could buy it. So I just bought a very
21 cheap, all-in-one scanner/printer from Walmart.

22 Q. When did you demonstrate the prototype successfully?

23 A. In October of 2005, we had the first demonstration.

24 Q. Did you have software that rotated the image of the check
25 to identify the edges of the check at that time?

1 A. Yes. We had edit image functions like rotating the check
2 and extracting the check image.

3 Q. What does PX 1622 reflect?

4 A. This is talking about the successful deposit all the way
5 into an actual bank account. We had this technology.

6 Q. Were there mobile phones --

7 MR. SHEASBY: Let's go to black now, Mr. Huynh.

8 Q. (BY MR. SHEASBY) Were there mobile phones that could
9 upload images using the USAA system in 2006?

10 A. There were. So if you looked at some of the phones at
11 the time, we had the Palm and the Nokia devices that could use
12 the same technology.

13 Q. Were those phones the type of phones USAA members would
14 afford and have?

15 A. They would not.

16 Q. Were there digital cameras in mobile phones with
17 sufficient resolution in 2006 to be used in your system?

18 A. Yes, there were.

19 Q. Were they common?

20 A. They were not common because, again, they are very pricey
21 phones.

22 Q. Does mobile phones -- is the resolution of mobile phones,
23 does that create challenge over other digital cameras?

24 A. Yes, sir.

25 Q. Why is that?

1 A. Typically digital cameras have higher resolution than the
2 cameras that are on the mobile phones.

3 Q. So I want to show you a timeline. What's this first part
4 of the timeline that's being depicted here?

5 A. So this is the timeline of the progression of
6 Deposit@Home at the time. So from October 2005 when we had
7 the first prototype successfully done, we opened it in June of
8 2006 for members, and then continued to improve it as a system
9 in 2007.

10 Q. So this system was optimized for scanners.

11 A. Yes, sir.

12 Q. Did it work for digital cameras?

13 A. Yes, it did.

14 Q. If a deposit was accepted by your system, was it
15 automatic?

16 A. It was fully automatic the way the system worked in
17 accepting a deposit into an account.

18 Q. After a deposit was accepted, was there sometimes manual
19 adjustment when you were forwarding the image to the clearing
20 bank?

21 A. Yes. So this is called settlement. So we would take in
22 some cases where the members used very cheap devices, cheap
23 cameras and cheap scanners, we did see there were situations
24 where we had to manually adjust the check for clearance and
25 settlement.

1 Q. Did the user device on your system perform image quality
2 analysis?

3 A. Yes.

4 Q. Did the user device in your system perform error
5 checking?

6 A. Yes, it did.

7 Q. Can you describe how error checking was performed?

8 A. So this error checking was performed in concert with the
9 server systems. And the server would send back the responses
10 to the device, and the device would send it back to the user.

11 Q. Why did you have the server assist the user?

12 A. So that is mainly to make sure the process is very
13 efficient, and also it's a better member experience for the
14 user.

15 Q. Did you show images of the check to the member in your
16 system?

17 A. Yes, we did.

18 Q. In your system was there any substantial impact based on
19 the order in which you showed the images after capture?

20 A. Whether we showed the images one after another or both at
21 the end, we did not have any material impact. What was
22 important was the member saw the images, they approved it for
23 deposit.

24 Q. After you launched the Deposit@Home system in 2006, which
25 was a web-based access, what was the next commercial product

1 you developed?

2 A. So after we did the 2006 release, we continued to improve
3 the system in 2007.

4 Q. And does PX 1506 reflect those improvements?

5 A. Yes, it does.

6 Q. And when were these improvements to the web-based system
7 completed?

8 A. Before the third quarter of 2007, we had completed this.

9 Q. After the completion of these improvements, where did you
10 turn next?

11 A. So we completely focused our efforts on commercializing
12 the product for iPhone and Android systems.

13 Q. When was iPhone released publicly?

14 A. The iPhone app itself was released in 2009 by USAA.

15 Q. When was the iPhone device released publicly?

16 A. The iPhone device itself was in June of 2007.

17 Q. Could you have conceptualized the iPhone app before June of
18 2007 if the device didn't exist?

19 A. No, sir, we could not.

20 Q. Now, what did you call the download -- the optimized
21 download app you created for iPhone and Android?

22 A. It was called Deposit@Mobile.

23 Q. Once you received -- how did the speed of Deposit@Mobile
24 commercial development compare to other commercial projects
25 that you worked on?

1 A. So other commercial projects that I have worked on at
2 USAA, compared to that this technology was on a fast track.

3 Q. Can you give us some examples of how Deposit@Mobile
4 commercial development the optimized app compares to other
5 projects that you worked on at USAA?

6 A. Yes. So one of the first projects I worked on when I
7 joined at USAA was to allow our members to pay bills through
8 our website. Just called the bill pay system. And that took
9 about three to four years for actual release.

10 I also worked on another effort where we allowed parents
11 to monitor their teenagers on how to drive using vehicle data,
12 and this again was a multi-year project.

13 Q. Do you recognize PX 1409?

14 A. Yes, I do.

15 Q. And I'm going to show you a page of this document. You
16 list the iPhone as one of four cameras. Why are you treating
17 the iPhone as a camera?

18 A. So among all the other features it provides, an iPhone is
19 a digital camera.

20 Q. Now, yesterday Mr. Stone showed a passage to the jury
21 which says MICR ink was read only about 25 percent of the
22 cases. Do you see that?

23 A. I do see that.

24 Q. And he represented that that reflected the capabilities
25 of the system in December 2007. Do you remember that?

1 A. Yes, I do.

2 Q. Was he being accurate or inaccurate in his representation
3 to the jury?

4 A. That was inaccurate.

5 Q. How do you know it was inaccurate?

6 A. So if you turn to the next slide, it talks about what
7 implements we did with our vendor. Our vendor there is All My
8 Papers, and we made them to change their software to fit our
9 invention, after which we had a hundred percent success on
10 iPhone images.

11 Q. So at the time of this presentation that Mr. Stone
12 showed, what was the success rate you were getting on MICR
13 reading?

14 A. A hundred percent.

15 Q. Now, did you give All My Papers the list of the specific
16 criteria you wanted them to adjust their system so it would
17 work in yours?

18 A. Yes.

19 Q. Was it a detailed list?

20 A. It was not a detailed list.

21 Q. I want to show you next another example, which
22 is -- exhibit, which is PX 1411. So what is this document?

23 A. This is a document Mr. Rey Medina is actually emailing
24 about the testing he is doing with the iPhone and other
25 devices.

1 Q. And who is Rey Medina?

2 A. Mr. Medina is a colleague of mine, and he's also a
3 co-inventor on some of other patents.

4 Q. Does this reflect the devices you were implementing or
5 thinking about implementing commercially in June of 2008?

6 A. Yes, it does.

7 Q. And it lists the iPhone and the Razr R2. Is that
8 correct?

9 A. It does.

10 Q. What was the overall success rate in these commercial
11 prototype runs?

12 A. As it is shown, we had success of 96.3 percent.

13 Q. And what was the iPhone percent rate?

14 A. 100 percent.

15 Q. And the Razr R2, what is that?

16 A. So Razr R2 was a Motorola phone, flip phone, that was
17 popular at the time. It had a low resolution camera, just
18 about 2 megapixels.

19 Q. And what was the iPhone's resolution? Was it a low
20 resolution camera?

21 A. The first generation of iPhone was a low resolution
22 camera of just 2 megapixels at the time.

23 Q. I'm showing you the next document, which is PX 1139.
24 What is this document?

25 A. This is a business -- the state of Deposit@Mobile and

1 presented to the business executives in December of 2008.

2 Q. Is this another type of those documents where you tell
3 them -- I withdraw the question. Let me ask it this way.

4 What does page 27 of 1139 say?

5 A. So this is talking about the results we are seeing after
6 real-time integration from the iPhone app all the way to the
7 back end, and we are seeing success rates of 82 to 94 percent
8 on a lot of testing we had done there.

9 MR. SHEASBY: Your Honor, at this time we have to
10 seal the court.

11 THE COURT: All right. Based on counsel's request
12 and to protect confidential information, I'll order the
13 courtroom sealed.

14 All persons present not subject to the protective order
15 in this case should excuse themselves and remain outside the
16 courtroom until the courtroom is reopened and unsealed.

17 (Courtroom sealed.)

18 THE COURT: Counsel, let me know when you've
19 completed any confidential information so I can unseal the
20 courtroom.

21 MR. SHEASBY: Thank you, Your Honor.

22 MS. SMITH: Excuse me, Your Honor. May I approach
23 Mr. Sheasby?

24 (Pause in proceedings.)

25 MS. SMITH: I apologize.

1 THE COURT: All right. We're sealed. Let's
2 proceed.

3 Q. (BY MR. SHEASBY) Have you heard of a company called
4 Mitek?

5 A. Yes, I have.

6 MR. SHEASBY: Let's go dark, actually.

7 Q. (BY MR. SHEASBY) What is Mitek?

8 A. Mitek was a company that sold old software for desktop
9 systems that would actually talk to commercial check scanners
10 to be able to capture check images.

11 Q. Was Mitek the only provider of this type of software?

12 A. No. There were many on the market at the time.

13 MR. STONE: Your Honor, may I object to this line of
14 questioning on the grounds it is not relevant?

15 THE COURT: Restate your objection, Mr. Stone?

16 MR. STONE: Yes. It's not relevant in light of the
17 claims that are being tried and the defenses that are being
18 tried. This is evidence that is not relevant.

19 THE COURT: What's the Plaintiff's response?

20 MR. SHEASBY: This is directly relevant. There was
21 extensive discussion about Mitek yesterday and that Mitek
22 reflected a massive portion of the value of this product. And
23 I'm going to elicit from the witness the accuracy or
24 inaccuracy of that representation.

25 MR. STONE: That's not the legal issue that's raised

1 at all, Your Honor, I think we laid out previously.

2 THE COURT: Relevance is a relatively low bar. I'm
3 going to overrule the objection.

4 MR. STONE: Thank you, Your Honor.

5 Q. (BY MR. SHEASBY) So you purchased software from Mitek
6 that was used with commercial check scanners. Is that
7 correct?

8 A. We did purchase software components from them, yes.

9 Q. And of the -- what was the entire code base of your
10 original Deposit@Home system?

11 A. It ran into millions of lines.

12 Q. And how many lines of code was this Mitek software that
13 you purchased?

14 A. Around a hundred lines.

15 Q. What did you do with the Mitek software?

16 A. So we just used the -- the Mitek software that we got
17 just to read the dollar amount on the check.

18 Q. Did you have to instruct Mitek how to modify their
19 software?

20 A. Yes, we did.

21 Q. What did you have them modify it in order to do?

22 A. We had to teach them the real-time system that we had
23 built. And Mitek software did not work with real-time systems
24 so they had to modify their software to make it work.

25 Q. And is PX 1945 an example of Mr. Medina teaching Mitek

1 about the errors and problems in their software?

2 A. Yes, it is.

3 Q. And who is Louise Stellar?

4 A. Ms. Louise Stellar was the Mitek account representative
5 that worked with USAA at that time.

6 Q. Did Mitek see portions of your code as part of this
7 process?

8 A. Yes, they did.

9 Q. Portions of your source code?

10 A. Yes.

11 Q. Who at Mitek saw your source code?

12 A. It was actually the Mitek support staff, specifically on
13 Carvat from the team.

14 Q. And does PX 508 reflect the type of information
15 Mr. Carvat would be provided about the system?

16 A. Yes, it does.

17 Q. And does PX 1925, does this reflect that Mitek was
18 invited onto USAA's campus to be provided an overview of your
19 system?

20 A. That's correct.

21 Q. Based on the examination of your application, can a
22 skilled engineer tell a substantial amount about how the
23 program was operating without access to source code?

24 A. Yes.

25 MR. STONE: Objection, Your Honor.

1 THE COURT: State your objection.

2 MR. STONE: This is improper subject of expert
3 testimony and not for a lay witness.

4 THE COURT: It calls for an opinion. This witness
5 is not all qualified as an expert. I'll sustain the
6 objection.

7 MR. SHEASBY: Your Honor, I was asking about his
8 software program.

9 THE COURT: You asked for his opinion as to -- it
10 may be his software program, but he's still not entitled to
11 offer an opinion.

12 MR. SHEASBY: I'm happy to move on, Your Honor.

13 MR. STONE: May the jury be instructed to disregard
14 the answer?

15 THE COURT: I think the jury understands if I
16 sustain your objection, they are to disregard the question and
17 the answer. Those are part of my earlier instructions.

18 MR. STONE: Thank you, Your Honor.

19 Q. (BY MR. SHEASBY) What's the next issue -- did you
20 continue to have -- provide Mitek with information about your
21 system after the date of this document?

22 A. Yes, we did. We had to work with them continuously to
23 make those images work because it was not working for us.

24 Q. What is the next issue that you will discuss?

25 A. I'd like to discuss a bit more about what is behind the

1 '571 Patent family.

2 Q. And remind us again what are the three legs of the '571
3 Patent.

4 A. So it's autonomous monitoring of the image before
5 capturing for the quality itself; the continuous feedback it
6 gives to the user in terms of correcting for a successful
7 check capture; and, finally, the system automatically
8 capturing the check instead of the user capturing it.

9 Q. I'm showing you PX 1138. Do you recognize this document?

10 A. Yes, I do.

11 Q. What is this document?

12 A. So this talks -- this is an invention form I had created
13 which contains all of the elements that went into the '571
14 Patent. It talks about the system monitoring the image prior
15 to capture. It talks about queueing the user on how to
16 instruct them to capture a successful image. It also talks
17 about the video stream we analyze before capturing, and
18 automatically the software capturing it once it finds it's a
19 good image.

20 Q. Were there devices in the market you could have used this
21 technology with in 2008?

22 A. Yes.

23 Q. What were they?

24 A. At that time we used the Windows mobile phone to where we
25 were able to test this out.

1 Q. Did the Windows mobile phone have access to live video
2 stream?

3 A. Yes, it did.

4 Q. Was it sufficiently popular with your members to support
5 a launch?

6 A. No, it was not.

7 Q. Do you provide an example in your patent of software that
8 can tap into a live video stream?

9 A. Yes. So the specification in this patent teaches how you
10 can use the Windows mobile phone from Microsoft Corporation
11 that had an API that allowed us to tap into the video stream.

12 Q. What's an API?

13 A. API is a piece of software that's running on the
14 operating system that we can use.

15 Q. Do these same livestream APIs exist in Android and
16 iPhones now?

17 A. Yes, they do.

18 Q. Do you use these same Android and iPhone APIs for your
19 product?

20 A. Yes, sir.

21 Q. Did USAA build a commercial prototype of the system?

22 A. Yes.

23 Q. About how many months did it take to build the commercial
24 prototype?

25 A. The app itself took about three months, but we had the

1 commercial prototype bulk of it less than a year.

2 MR. STONE: Your Honor, might I inquire whether we
3 are done with the issues that needed to be sealed?

4 MR. SHEASBY: We have one more.

5 THE COURT: I asked counsel to let me know when he
6 covered the sealed or the information that needed to be
7 sealed.

8 MR. STONE: Thank you, Your Honor.

9 THE COURT: Let's continue.

10 Q. (BY MR. SHEASBY) Why did you wait until 2012 and 2013 to
11 build the commercial app?

12 A. So we wanted to make sure the video camera has the right
13 resolution, and iPhone did not have that until 2009.

14 And also USAA Bank was observing the kind of phones our
15 members had, and we did not find it optimal until 2012, 2013,
16 to release this product to our members.

17 Q. In the commercial development of a product, given the
18 large number of phones, was there a lot of testing that needed
19 to occur?

20 A. For the commercial launch itself, we tested a bit because
21 our members carried various versions and various types of
22 phones, and we wanted to make sure it would work with all
23 those.

24 Q. And by saying a bit, you actually had to test for all of
25 them.

1 A. We had to test for all of them, yes.

2 Q. Are you finished launching consumer remote deposit
3 capture products?

4 A. No, we are not. This is a journey for us, so we are
5 looking at newer devices. For example, if Apple releases the
6 smart glasses, we are planning to support this for smart
7 glasses.

8 Q. What is your views of the importance of your consumer
9 remote deposit capture?

10 THE COURT: Mr. Sheasby, slow down, please.

11 MR. SHEASBY: Yes, Your Honor.

12 MR. STONE: Your Honor, I'd ask again, there's
13 nothing about this that is confidential and we should lift the
14 sealing of the courtroom at this time.

15 MR. SHEASBY: Your Honor, this is my last question.

16 THE COURT: Ask your question.

17 Q. (BY MR. SHEASBY) What is your views of the importance of
18 the consumer remote deposit capture technology that you
19 created?

20 A. So working with Mr. Oakes and Mr. Medina, I have -- we
21 have collectively around 260 patents, but we consider this as
22 the most important work we have done in our careers at USAA.

23 Q. Thank you, Mr. Prasad.

24 MR. SHEASBY: I pass the witness, Your Honor.

25 THE COURT: All right.

1 THE WITNESS: Thank you.

2 THE COURT: Mr. Stone, is there a need to maintain
3 the seal on the courtroom for the beginning of your
4 cross-examination?

5 MR. STONE: There is not. May we distribute
6 binders, please?

7 THE COURT: You may distribute the binders.

8 I'll order the courtroom reopened and unsealed. I'll
9 direct the Court Security Officer to invite the public to
10 return.

11 (Courtroom unsealed.)

12 THE COURT: Mr. Stone, you may proceed with
13 cross-examination.

14 MR. STONE: Thank you, Your Honor.

15 CROSS-EXAMINATION

16 BY MR. STONE:

17 Q. Good morning, Mr. Prasad.

18 A. Good morning.

19 Q. We never met before, have we?

20 A. No, sir.

21 Q. The videos that you showed us, the demonstration videos,
22 those were not prepared in 2006, were they?

23 A. The videos were prepared just before coming here, yes.

24 Q. And you didn't prepare these videos using products that
25 existed in 2006, did you?

1 A. They are the current versions of those products.

2 Q. And the phone you used was an iPhone?

3 A. It was a Samsung Android phone.

4 Q. And then the laptop that you used was a Samsung 2 in 1?

5 A. Yes, sir.

6 Q. And the Samsung phone of that version did not exist in
7 2006, did it?

8 A. I'm not sure whether Samsung had a laptop at the time.

9 Q. I'm sorry. I was asking you back about the phone.
10 Samsung didn't have a smartphone in 2006, did it?

11 A. Not Samsung. Correct.

12 Q. It had function phones. Correct?

13 A. It did, yes.

14 Q. And it didn't have a 2-in-1 laptop in 2006, did it?

15 A. I'm not sure, sir.

16 Q. Did patents that you and Mr. Oakes and Mr. Medina have --
17 I think you told us they totaled 262?

18 A. 260 patents, about that, yeah.

19 Q. And how many of those relate to remote deposit?

20 A. I'm not exactly sure, sir.

21 Q. Can you give me an estimate?

22 A. Maybe around half of it, yeah.

23 Q. And each of those patents, in your view, Mr. Prasad, is
24 valuable. Correct?

25 A. Yes, sir.

1 Q. Each of those is worth money to USAA. Correct?

2 A. I wouldn't be able to put a number or money around it,
3 no.

4 Q. Okay. But you would agree each of them is valuable.

5 A. It is a value, yes.

6 Q. And each of them in your view provides a different aspect
7 of some important feature that is part of remote deposit
8 capture. Correct?

9 A. I cannot answer that. Sorry.

10 Q. Well, each of them covers something different, don't
11 they?

12 A. They might, yes.

13 Q. You can't get more than one patent on the same thing, can
14 you?

15 A. You can have the same application leading to multiple
16 patents. Correct.

17 Q. But each of the patents has to cover -- each of the
18 claims has to cover something different and distinct.
19 Correct?

20 A. That's my understanding.

21 Q. Because you've done a number of patent applications.
22 Correct?

23 A. Correct.

24 Q. And you're familiar with the concept of double-patenting
25 which is not permitted. Correct?

1 A. I'm not very familiar, but --

2 MR. SHEASBY: Your Honor, the issue of
3 double-patenting has no relevance whatsoever to this case and
4 it should not be discussed at all.

5 THE COURT: I'll overrule that. It's a
6 straightforward question. We're not going to go further into
7 it, but I'm not going to exclude that one question.

8 MR. STONE: Thank you, Your Honor. I don't intend
9 to go further than that.

10 THE COURT: I assumed that. Let's proceed, Mr.
11 Stone.

12 Q. (BY MR. STONE) Do you have the question in mind, Mr.
13 Prasad?

14 A. Yes, sir.

15 Q. Okay. Can you answer it?

16 A. Yes. So I understand that each patent has its own level
17 of unique claims for validity, yeah.

18 Q. And the claims at issue in this case, they were filed
19 when? The actual claims at issue in this case were filed
20 when?

21 A. Which patent, sir?

22 Q. Let's take the '432 first. When were those claims at
23 issue in this case filed?

24 A. I believe the claims for the '432 was 2015. I'm not
25 sure. I have to look through the claims.

1 Q. Let's just look at it on the screen.

2 MR. STONE: Let's bring up DX 29.

3 Q. (BY MR. STONE) This is the '605. We'll just do this one
4 first if you don't mind.

5 MR. STONE: Not the date of the patent, please. If
6 we could go down to where it says, filed.

7 Q. (BY MR. STONE) The claims of the '605 Patent that are at
8 issue in this case were filed in July of 2017. Correct?

9 A. Yes, sir.

10 MR. STONE: Let's go to DX 30 if we could.

11 Q. (BY MR. STONE) This is the '681 Patent.

12 MR. STONE: And if you could go down and show --

13 Q. (BY MR. STONE) -- for DX 30, the claims there were filed
14 in July 28th of 2017. Correct?

15 A. Yes, sir.

16 MR. STONE: And then if we could go to DX 32, which
17 I think will be the '432 Patent, if we can show when the
18 claims were filed there of the '432 Patent.

19 Q. (BY MR. STONE) They were filed in May 18th of 2018.
20 Correct?

21 A. That is correct.

22 Q. Now, you told us about the success rates or failure rates
23 that USAA had when they introduced auto-capture to their
24 members. Do you remember that testimony?

25 A. Yes, I do.

1 Q. And you put up a chart which I think I was given it as
2 your demonstrative PDX 18-28, but it's possible it got
3 renumbered.

4 MR. STONE: But let's try to bring up what I have as
5 PDX 18-28.

6 Q. (BY MR. STONE) This is the chart that you showed us
7 earlier during your examination. Correct?

8 A. Yes, sir.

9 Q. And to prepare this chart, you looked at a database that
10 is PX 913. Correct?

11 A. I'm not sure what database that is, sir.

12 Q. Oh, you went and looked at a database to get the
13 information for this chart, didn't you?

14 A. Yeah. This is -- this chart is based on the failure
15 rates we were seeing at the time prior to auto-capture and
16 what's in green is after auto-capture.

17 Q. And I understand. But to get the data to put on the
18 chart that you showed us, you went and looked at the data,
19 didn't you?

20 A. Not me personally.

21 Q. Well, somebody gave you this and you didn't check to see
22 if it was right?

23 A. This is a document from USAA, so it is definitely -- has
24 been verified.

25 Q. The chart was prepared by USAA?

1 A. Yes.

2 Q. But the data is in an Excel spreadsheet. Correct?

3 A. Correct.

4 Q. And you didn't go look at that data.

5 A. I'm talking to the chart here, yes.

6 Q. Okay. But the data shows that if you -- the data shows
7 that before auto-capture was released, the first capture rate
8 success was on the uptick, didn't it?

9 A. The success rates, yes.

10 Q. Was already on the uptick before auto-capture was
11 released?

12 A. Correct.

13 Q. And then after auto-capture was released and that uptick
14 continued, then the success rate dropped off again, didn't it?

15 A. Correct.

16 Q. So if you look at a time period longer than three months
17 on each side, what you'll see is you happen to release
18 auto-capture at a point in time when things were on the
19 upswing and then they came back down on the downswing, didn't
20 they?

21 A. They came back down for different reasons I'm not sure,
22 but yes. This is the failure rate chart, though.

23 Q. Well, but your -- your database doesn't have failure
24 rates. It just has success rates. Right?

25 A. Yes.

1 Q. Okay. So can we agree then that if you go back in time
2 to an earlier point in time, success rates were already going
3 up. And if you go out in time a little bit past your three
4 months, success rates dropped back off again. That's true,
5 isn't it?

6 A. I'm not sure. I have to look at the data for that.

7 Q. You haven't looked at that.

8 A. No.

9 Q. Well, let me show you DX 3.14. DDX 3.14. Now, this
10 shows a few more months on each side of the release date for
11 the auto-capture for the iPhone, which was May of 2013.

12 Correct?

13 A. Correct.

14 Q. And you see that on the left-hand side on this chart, the
15 iPhone rate is high, and then it drops off, and then it's
16 starting back up. Do you see that?

17 A. Yes.

18 Q. And then it goes up, and then it drops back down again.
19 Do you see that?

20 A. Yes.

21 Q. So if we look at the number for May of 2012 and April of
22 2014, those are essentially at the same success rates.

23 Correct?

24 A. Approximately, yes.

25 Q. Okay. Thank you.

1 MR. STONE: We can take that down.

2 Q. (BY MR. STONE) Now, in 2006, what USAA had was a system
3 they called Deposit@Home. Correct?

4 A. Yes, sir.

5 Q. And Deposit@Home used scanners, didn't it?

6 A. In the commercial system, we had optimized it for
7 scanners, yes.

8 Q. Okay. And let me ask you about the laboratory. You work
9 at a laboratory. Correct?

10 A. Correct.

11 Q. And in your research laboratory, prior to October 31st of
12 2006, no one at USAA had used a digital camera to take a check
13 image that was then deposited through your system
14 Deposit@Home, had they?

15 A. That is correct.

16 Q. And nobody in your research laboratory at USAA as of
17 October 31st, 2006, had used a smartphone to take a picture of
18 a check image and deposited it using Deposit@Home, had they?

19 A. That is correct.

20 Q. And they hadn't even done it using a feature phone, had
21 they?

22 A. That is correct.

23 Q. Prior to October 31st of 2006, in the USAA research
24 laboratory, nobody had used anything other than a scanner to
25 get a check image to deposit through your system, had they?

1 A. At the laboratories, that is correct.

2 Q. Okay. Now, in October of 2006, one of your members who
3 was using Deposit@Home, instead of plugging it into their
4 scanner, plugged it into a webcam. Correct?

5 A. That is correct.

6 Q. And it's easy enough, using that TWAIN driver, to send
7 photographs over the internet to your friends, for example,
8 right from your digital camera onto your laptop over the
9 internet. Correct?

10 A. I'm not sure what friends -- I'm not sure about the
11 friends' part.

12 Q. Take the friends' part out. Take the friends' part out.
13 That was unnecessary.

14 It was easy, using a TWAIN driver, to plug your digital
15 camera into your laptop and download the pictures onto your
16 laptop in 2006.

17 A. You could download it, too, if you wanted to, yes.

18 Q. Okay. And the one member who did this before you filed
19 your patent application is one member -- they used a webcam.

20 A. Yes.

21 Q. And the image that came through required manual
22 adjustment. Correct?

23 A. I'm not aware of that, no.

24 Q. You looked at Exhibit DX 1124 earlier, didn't you, the
25 Chuck Oakes' email stream?

1 A. Yes, sir.

2 Q. It says it needed manual adjustment, doesn't it?

3 A. I'm not aware of that.

4 Q. Well, let's take a look at DX 1124.

5 MR. STONE: Let's go down one page, if we can.

6 Q. (BY MR. STONE) If you look at the second paragraph from
7 the top --

8 MR. STONE: Could we blow that up, the one that says
9 also?

10 Q. (BY MR. STONE) It says the image was usable, but it did
11 take some tweaking on the back end. Did I read that
12 correctly?

13 A. Yes, you did.

14 Q. And then it says, so it didn't go through the flow
15 smoothly. Is that what it says next?

16 A. Yes, it does.

17 Q. And by flow smoothly, you understand that to mean the
18 process by which the image is ultimately sent for deposit.
19 Correct?

20 A. That is correct.

21 Q. Because an image to be sent for deposit has to meet
22 certain criteria, doesn't it not?

23 A. Yes, it does.

24 Q. And you wanted a system that worked in real time. Right?

25 A. Correct.

1 Q. So if the images didn't meet the criteria when they came
2 through, the process would be slowed down.

3 A. It depends on what --

4 Q. You couldn't immediately tell the customer, we've
5 deposited this to your account. Instead, you have to wait for
6 a human to look at the image, adjust it, and decide if it can
7 be deposited. Correct?

8 A. That is not correct.

9 Q. Well, let me ask you this. What it says here is, in the
10 next sentence, "We would need to find a way to overcome the
11 manual image adjustment." Manual image adjustment refers to a
12 human being doing it manually. Correct?

13 A. Yes.

14 Q. Okay. And so with this one image that came in in 2006,
15 it required manual adjustment.

16 A. Correct. This is an email from Mr. Huth.

17 Q. Yes. We can go back up. Let's -- it's in response to an
18 email from Mr. Luby right below. Correct?

19 A. Correct.

20 Q. And Mr. Luby was the president of USAA bank at the time.
21 Correct?

22 A. That is correct.

23 Q. And what he said, he's talking about this idea of using a
24 digital camera, and he says, that's a great idea. Right?

25 A. Correct.

1 Q. He says, we should figure out how to make it work.

2 Correct?

3 A. Correct.

4 Q. And this went to people that worked with you in the
5 applied research division. Correct?

6 A. Not directly from Mr. Luby, no.

7 Q. Mr. Huth, was he in the applied research division?

8 A. Mr. Huth was a business person in the bank.

9 Q. Okay. And what about Mr. Barth?

10 A. Mr. Barth was a business executive in the bank.

11 Q. So he is sending it to other business people, saying, we
12 should figure out how to make this work. Correct?

13 A. Correct.

14 Q. And he also says, how about doing it with a phone.
15 Correct?

16 A. Correct.

17 Q. And then if we go to the first page of the document, so
18 at the very top, we have an email from Mr. Oakes to you
19 sending all of this email chain from Mr. Oakes to you.
20 Correct?

21 A. Correct.

22 Q. And he said to you, FYI, for your information, great
23 opportunity; let's talk. Correct?

24 A. Correct.

25 Q. And let's look -- let's go back and look at the email

1 just below that from Mr. Burks. You told us that Mr. Burks
2 was involved in what? What was his position at the time?

3 A. He was the chief technology officer.

4 Q. And the applied research division reported to him.

5 A. That is correct.

6 Q. And so he knew what was going on in the applied research
7 division.

8 A. Correct.

9 Q. And Mr. Oakes was in charge of the applied research
10 division.

11 A. Yes, sir.

12 Q. And he said to Mr. Oakes, we should get this in the
13 queue. Correct?

14 A. Yes, sir.

15 Q. And when he said, let's get it in the queue, we meant get
16 it in the queue to work on this.

17 A. To commercialize it, yes.

18 Q. To work on it.

19 A. To commercialize the system and develop, yeah.

20 Q. To develop the system.

21 A. Yes, for commercialization.

22 Q. Because you hadn't tested any cameras in the laboratory
23 as of November 6th of 2006, had you?

24 A. We did not use a camera, but we knew it worked, yes.

25 Q. You hadn't tested any, was my question. You had not

1 tested any.

2 A. Correct.

3 Q. You hadn't experimented with any.

4 A. We had experimented with the TWAIN layer that we knew
5 would work with digital cameras.

6 Q. You had not experimented with any cameras, Mr. Prasad,
7 had you?

8 A. Correct.

9 Q. Okay. And you hadn't experimented with any smartphones,
10 had you?

11 A. Correct.

12 Q. And you hadn't experimented with any feature phones.

13 A. Correct.

14 Q. Now, in early 2007, you and Mr. Morris decided to test
15 some phones and phone cameras that were available on the
16 market. Correct?

17 A. Correct.

18 Q. And you went out and purchased those phones.

19 A. That is correct.

20 Q. You didn't think they would work because you didn't think
21 the resolution of the cameras would be good enough, but you
22 thought you would try them. Correct?

23 A. That's not correct.

24 Q. Did you think they would work then?

25 A. Yes.

1 Q. And you discovered the resolution wasn't good enough,
2 didn't you?

3 A. For those phones, yes.

4 Q. So you thought they would work, but you discovered they
5 didn't. Correct?

6 A. They did not work for the commercialization aspect of it
7 at the time.

8 Q. Now, Deposit@Home, you downloaded an app in order to use
9 Deposit@Home to your laptop?

10 A. It was an automatic download.

11 Q. It was a web-based system?

12 A. Yes, sir.

13 Q. And you went to the website of USAA?

14 A. Yes.

15 Q. And you, using the website, you scanned the check on a
16 scanner and then you sent that image over the internet to the
17 website of USAA into the Deposit@Home site where it was
18 received. Correct?

19 A. Yes. The application did it automatically, yes.

20 Q. And one of the things that was important for that image
21 was that it would be extracted from whatever was on the
22 background. Right? You needed to know where the edges of the
23 check were.

24 A. Correct.

25 Q. And in order -- on Deposit@Home, in order to know where

1 the edges of the check were, the user manually identified the
2 corners? Is that right?

3 A. No. That was not right.

4 Q. They didn't identify three of the four corners?

5 A. No, they did not.

6 Q. Did the software in October of 2006 automatically
7 determine the edges?

8 A. So they actually had multiple options. They could click
9 one corner if they wanted to.

10 Q. Okay. So they could manually click one corner.

11 A. But it automatically did it, too, yes.

12 Q. And that would then help identify the edges.

13 A. Yes. That was one option.

14 Q. Because it was important to identify the edges. Correct?

15 A. Correct, sir.

16 Q. And at that time in October of 2006 for Deposit@Home,
17 the -- it was important that some information on the check
18 image be readable. Correct?

19 A. Correct.

20 Q. I think we have a check --

21 MR. STONE: Maybe we could bring up, Mr. Nickels, a
22 check? I think it's DDX 3.1.

23 Q. (BY MR. STONE) This is just an example check for all of
24 us to look at while I ask you a few questions about it, Mr.
25 Prasad. But the software had to be able to read from the

1 image the amount of the check, the bank where the check was
2 drawn, and the account from which the money was to come.
3 Correct?

4 A. That is correct.

5 Q. And so the amount of the check is what is called in the
6 courtesy amount line or the CAR. Correct?

7 A. That is correct.

8 Q. And that number was often going to be in handwriting. Is
9 that correct?

10 A. Yes, sir.

11 Q. And then the MICR line that we see down in the bottom,
12 that consists of the bank routing number so you know what bank
13 it is, and the account number so you know the account of the
14 person who wrote the check. Correct?

15 A. That is correct.

16 Q. And if you couldn't read this -- if the software on the
17 system couldn't read this information from the image, it
18 wasn't able to process the check automatically, was it?

19 A. In most cases. Correct.

20 Q. Okay. And so one of the things you needed was software
21 that would enable you to read the amount of the check.
22 Correct?

23 A. Yes, sir.

24 Q. And USAA acquired the software to read the amount of the
25 check from another company. Correct?

1 A. That is correct.

2 Q. Could you tell us the name of that company?

3 A. It was Mitek Systems.

4 Q. Okay. So you went to Mitek and said, we need to know how
5 to read this handwritten check amount. Can you give us that
6 software? And they sold it to you. Correct?

7 A. Yes, sir.

8 Q. And then you also needed to read the information on the
9 MICR line. Correct?

10 A. That is correct.

11 Q. And you went to another company and purchased that
12 information from them. Correct?

13 A. That is correct.

14 Q. And what was that company's name?

15 A. All My Papers.

16 Q. Okay. And you continued to use software from Mitek and
17 software from All My Papers for many years after 2006.
18 Correct?

19 A. Correct.

20 Q. Now, you -- we -- earlier you showed us a document, a
21 TWAIN document. It's PX 1126.

22 MR. STONE: If we could bring that up?

23 Q. (BY MR. STONE) You showed us this document earlier.
24 Right?

25 A. Yes, sir.

1 Q. This document was not prepared by USAA, was it?

2 A. Yes, it was.

3 Q. Well, let's go back to the whole page. Look at the
4 bottom. Who does it say prepared it?

5 A. TATA Consultancy Services, India.

6 Q. Is TATA Consultancy Services in India owned by USAA?

7 A. The company is not owned by USAA, no.

8 Q. Okay. And then let's go to page 5 of this document.

9 MR. STONE: Let's blow that up.

10 Q. (BY MR. STONE) It says -- under the purpose, it says,
11 "This DLL has been developed for the home deposit scanning
12 project for USAA FSB." Do you see that?

13 A. Yes, I do.

14 Q. And USAA FSB refers to USAA bank. Correct?

15 A. Correct.

16 Q. Okay. And the home deposit scanning project refers to
17 Deposit@Home. Correct?

18 A. Correct.

19 Q. And the DLL, DLL is a library of information. Correct?

20 A. Correct.

21 Q. What does DLL stand for?

22 A. Dynamic Linked Library.

23 Q. Okay. And so the DLL that was being developed for the
24 home deposit scanning project for USAA Bank was a library of
25 information and it was being prepared by TATA Consultancy.

1 Correct?

2 A. Not the DLL, no.

3 Q. They were not preparing the DLL?

4 A. No, sir.

5 Q. Okay. So it goes on to say, The core objective of this
6 project is to provide a facility to the customers of USAA to
7 deposit checks from their home. Do you see that?

8 A. Correct.

9 Q. And it says, If the customer has a scanner attached, they
10 can log into USAA and scan the check and deposit it. Do you
11 see that?

12 A. Correct.

13 Q. And it goes on to say, The portal page is designed in
14 such a way that it will directly take care of scanning the
15 checks from the customer's scanner. Right?

16 A. Yes.

17 Q. And this is completely Java-based. That's a computer
18 language, I take it?

19 A. Correct.

20 Q. And TWAIN is the only technology which bridges
21 applications and scanning devices. Right?

22 A. Correct.

23 Q. Okay. So this proposal, this document, and I would say
24 rather than proposal, this document was prepared for USAA by
25 TATA. Correct?

1 A. TATA was part of the team, the core team.

2 Q. Okay. But it's a different company.

3 A. The company itself is different from USAA, correct.

4 Q. Okay. And this document, if we look at the change
5 history --

6 MR. STONE: Go back to page 2.

7 Q. (BY MR. STONE) If we go back to page 2 and we look at
8 the change history, this document was prepared in 2006.
9 Correct?

10 A. Yes, sir.

11 Q. Okay. August of 2006. Right?

12 A. Correct.

13 Q. Okay. There's no discussion in this document of mobile
14 phones, is there?

15 A. Yes, there is.

16 Q. Oh? Where's the discussion of mobile phones? Where's
17 that word?

18 A. I don't see the word here, sir.

19 Q. Okay. And, in fact, in the three patents we looked at
20 earlier, the '605, the '432, the '618, the word 'mobile
21 phone' doesn't appear in any of those patents in these
22 original specification filed in 2006, does it?

23 A. That is correct.

24 Q. And the word 'smartphone' doesn't appear in the original
25 application, either, does it?

1 A. That is correct.

2 Q. Now --

3 THE COURT: Let me interrupt for just a minute.

4 MR. STONE: Yes, Your Honor.

5 THE COURT: I think, ladies and gentlemen, there's
6 not a perfect place, but we're going to take a short recess at
7 this juncture. This is a time when you can simply close your
8 notebooks and leave them in your chairs.

9 Please follow all the instructions I've given you about
10 your conduct, including not to discuss the case with each
11 other.

12 And we'll be back shortly and continue with the
13 Defendant's cross-examination of this witness.

14 The jury's excused for recess.

15 (Whereupon, the jury left the courtroom.)

16 THE COURT: Counsel, I'll try to keep this to 10 or
17 12 minutes. The Court stands in recess.

18 MR. STONE: Thank you, Your Honor.

19 (Brief recess.)

20 THE COURT: Be seated, please.

21 All right. Are we ready to continue with
22 cross-examination?

23 MR. STONE: Yes, Your Honor.

24 THE COURT: Let's bring in the jury, please.

25 (Whereupon, the jury entered the courtroom.)

1 THE COURT: Please be seated, ladies and gentlemen.

2 We'll continue with the Defendant's cross-examination of
3 Mr. Prasad.

4 Mr. Stone, you may continue.

5 MR. STONE: Thank you, Your Honor.

6 Q. (BY MR. STONE) Mr. Prasad, earlier we were speaking
7 about the TWAIN software. Remember that?

8 A. Yes, sir.

9 Q. TWAIN software was something that USAA obtained from
10 another company. Correct?

11 A. Correct.

12 Q. You paid -- you purchased it or licensed it from another
13 company?

14 A. Correct.

15 Q. What was that company?

16 A. It was called Asprise, LAB Asprise.

17 Q. Okay. And you were shown earlier on your direct
18 examination by Mr. Sheasby, you were shown an invention
19 disclosure form. Is that right?

20 A. Correct.

21 Q. And you were instructed during your time at USAA that
22 it's important that invention disclosure forms be signed and
23 dated.

24 A. Correct.

25 Q. And that they be witnessed by someone else independent of

1 you?

2 A. By the core team, yes.

3 Q. Somebody else on the core team needed to sign it as well.
4 Correct?

5 A. They used to be -- yeah. We used -- I don't know if it's
6 an official signature on that document.

7 Q. Okay. But you understood the need for corroboration of
8 the date and the time of that form being filled out. Correct?

9 A. I would think so. I'm not sure.

10 Q. Okay. Let me go back now to 2006. When was -- it was in
11 October through June, was it not, October through June,
12 October of 2006, June of 2007, that USAA employees first
13 conceived of the idea of using the display on a handheld
14 mobile device to assist the customer in having a digital
15 camera take a photo of a check to be submitted?

16 A. For commercialization purposes, yes.

17 Q. And you didn't -- when you -- it's not limited that way.
18 That's when you first conceived of the idea of even doing it
19 at all. Is that correct?

20 A. That is not correct.

21 Q. I want you to look -- you gave a deposition in this case.
22 Correct?

23 A. Correct.

24 Q. On October 13th of 2021. Correct?

25 A. Correct.

1 Q. It's in the binder that's there before you, is your
2 transcript. Turn, if you would, to page 29 and read the
3 question, page 29, lines 21 through 25.

4 Do you have that in front of you? Have you had a chance
5 to read the question?

6 A. This is the Wells Fargo --

7 Q. Oh, no, no. There should be a deposition ahead of that
8 in this case.

9 A. Sorry.

10 Q. That's okay. My apologies if I gave you bad directions,
11 Mr. Prasad.

12 A. I have it, sir.

13 Q. Okay. Have you read the question at page 29, lines 21
14 through 25? Just read it to yourself.

15 A. Yes, I do.

16 Q. And then would you read the answer at lines 31
17 through -- I'm sorry, on page 31, lines 1 through 4.

18 A. I do.

19 Q. Does that refresh your recollection that USAA employees
20 first conceived of the idea of using a display on a customer's
21 handheld mobile device to assist the customer in having a
22 digital camera take a photo of a check in October or November
23 of 2006 through June of 2007?

24 A. It does with respect to the iPhone, yes.

25 Q. You didn't have an iPhone in October or November 2006,

1 did you?

2 A. No, sir.

3 Q. And you didn't have one until June of 2007 when they
4 first became available, did you?

5 A. Correct.

6 Q. And the first time you conceived, any USAA employee
7 conceived of using the idea of a display on a customer's
8 handheld mobile device to assist the customer in having a
9 digital camera take a photo of a check was with respect to the
10 iPhone. Correct?

11 A. With respect to the iPhone, correct.

12 Q. And the cameras on devices, mobile phone cameras prior to
13 the iPhone were really poor. Right?

14 A. There were advanced phones with good cameras, too, at the
15 time.

16 Q. Take a look, if you would, at your deposition at page 30,
17 lines 10 through 13.

18 A. Yes, sir.

19 Q. Does that refresh your recollection that prior to the
20 iPhone the cameras on phones were really poor?

21 A. Yes.

22 Q. Okay. And you knew those cameras would not be really up
23 to the mark to capture the right kind of check with the proper
24 resolution. Isn't that right?

25 A. For the type of phones our members could afford, correct.

1 Q. And you were talking there about not only phones that
2 were on the market that you have said your members could
3 afford, but you were talking about Microsoft mobile ME phones.
4 Correct?

5 A. That is correct.

6 Q. And you were talking about the Palm, like the Palm Pilot.
7 Correct?

8 A. That's correct.

9 Q. And the Nokia device as well. Correct?

10 A. Correct.

11 Q. All of those were included in what you just described was
12 something that was not really up to the mark. Isn't that
13 right?

14 A. The type of phones our members could afford, they were
15 not.

16 Q. Okay. And the phones, when you bought them and tested
17 them in the first few months of 2007, you purchased those
18 phones for experimentation. Right?

19 A. Towards a commercial product, yes.

20 Q. Well, I want you to take a look again, if you would, at
21 your deposition, and the question at page 31, lines 6 through
22 11, and then the portion of your answer at page 32, lines 18
23 through 20.

24 A. Yes, sir.

25 Q. Have you had a chance to read that?

1 A. Yes.

2 Q. Does that refresh your recollection that those phones
3 that you purchased in the first half of 2007 were purchased
4 for experimentation purposes?

5 A. For commercialization, yes.

6 Q. When you gave --

7 A. Experimentation for commercialization, yes.

8 Q. When you gave your deposition, you said they were
9 purchased for experimentation. Correct?

10 A. This is experimentation for commercialization, yeah.

11 Q. And you didn't say anything about commercialization in
12 your deposition, did you?

13 A. I don't see that on those lines, no, sir.

14 Q. In fact, the first time you decided -- USAA decided they
15 might start working on exploring how to do -- expand
16 Deposit@Home to allow digital cameras to come into the picture
17 was not until after your member had used a webcam to do that.
18 Correct?

19 A. Can you repeat the question, sir?

20 Q. Certainly. You had a member who used a webcam to take a
21 picture of a check in October of 2006 and that led to the
22 email that included you and Mr. Oakes that we saw earlier. Do
23 you remember that?

24 A. That is correct.

25 Q. And it was that event that caused USAA to decide you

1 might want to start working on exploring how to expand
2 Deposit@Home in 2006 to allow cameras to come into the
3 picture.

4 A. For the commercial product, that is correct.

5 Q. Take a look at your deposition, if you would. Look at
6 page 40. The question at lines 5 through 8, the answer at
7 lines 20 through 24.

8 A. Yes, sir, I see that.

9 Q. Does that refresh your recollection that the first time
10 USAA decided that they might want to start working on
11 exploring how to expand this application in 2006 to allow
12 cameras to come into the picture was after the member had
13 submitted a picture of a check using a webcam?

14 A. Yes, sir. Expanding the application. So it is a
15 commercial effort we are trying to do there.

16 Q. Expanding Deposit@Home?

17 A. Deposit@Home as it was commercialized to the members,
18 yes.

19 Q. And at that time you had not tested any digital cameras
20 in your laboratory, had you?

21 A. That is correct, sir.

22 Q. And you had not tested any type of phone, smart feature
23 or otherwise, had you?

24 A. Yes, sir, we had not.

25 Q. Okay. And going from a system that uses a scanner to

1 take the image of the check to a system that uses a camera on
2 a mobile phone is not easy, is it?

3 A. It has different challenges with the mobile phone, so it
4 is different, yes.

5 Q. And it's not easy, is it?

6 A. It is not easy. Correct.

7 Q. Okay. And, in fact, it's a different ball game
8 completely, isn't it?

9 A. In one context, yes, it is.

10 Q. There is a lot of complexity surrounding using a mobile
11 phone that doesn't exist in using a scanner. Correct?

12 A. It has its complexities, yes.

13 Q. A scanner is flat. Correct?

14 A. That's right.

15 Q. It has a white background.

16 A. Mostly, yeah.

17 Q. The camera focal length and distance is all set by the
18 scanner design.

19 A. Correct.

20 Q. The resolution of the camera is set for --

21 A. Not necessarily, yeah.

22 Q. Okay. It's adjustable to work with the distance at which
23 you put the paper on the scanner.

24 A. Yes, sir.

25 Q. The lighting conditions are almost always uniform.

1 A. Correct.

2 Q. When you go to a digital camera or a mobile phone, the
3 lighting can be varied. Correct?

4 A. Correct.

5 Q. And the background could vary from a kitchen table to a
6 stack of papers?

7 A. Yes, sir.

8 Q. Okay. And you could have shadows on it. Correct?

9 A. Correct.

10 Q. In fact, when you prepared the videos that you showed
11 earlier this morning, you held the camera out in front of you
12 and the check out of front of you so the light from above
13 would not be shadowed by your head or something looking over.
14 Correct?

15 A. Yes, sir. And there was also the video capturing the
16 whole thing to allow space for that.

17 Q. And you also know that, when you use a digital camera or
18 a phone camera, one of the things you have to be careful about
19 is the angle of the camera so that you don't change the
20 perspective and get skewing or -- or some other non-uniformity
21 in the photo. Correct?

22 A. Correct, sir.

23 Q. Okay. And you would describe a scanner as a controlled
24 two-dimensional environment for purposes of obtaining check
25 images, wouldn't you?

1 A. It is controlled. It has its challenges for two
2 dimensional, correct.

3 Q. And you would describe using a camera phone or even a
4 digital camera as being a three-dimensional environment.
5 Correct?

6 A. Yes, sir.

7 Q. And it's a complex series of steps and processes that you
8 need to go through to take an image in a three-dimensional
9 environment and turn it into is an acceptable two-dimensional
10 image. Correct?

11 A. Correct.

12 Q. And you would describe the difficulty of solving that
13 problem as extremely hard, wouldn't you?

14 A. Yes, it is.

15 Q. In order to do that, you need things like shaping
16 algorithms. Correct?

17 A. I'm not exactly sure.

18 Q. You need histograms, don't you?

19 A. That's one of the techniques you could use, yes.

20 Q. You need skewing algorithms. Correct?

21 A. That's another technique you could use.

22 Q. You need multiresolution or segmentation algorithms,
23 don't you?

24 A. That's another technique you could use.

25 Q. These are all very -- these are technical terms that

1 we're using now. Right?

2 A. Yes, sir.

3 Q. And you need to be able to separate out the check from
4 the background and everything around it because it's only that
5 check image that the federal banks require, the Federal
6 Reserve requires. Right?

7 A. That is right.

8 Q. In order to do that, to extract the check from the
9 background, somebody needs to write computational algorithms.
10 Isn't that true?

11 A. That is true.

12 Q. And you developed those algorithms at USAA. Correct?

13 A. Yes, sir.

14 Q. And you needed those algorithms in order to make the
15 check image capture and deposit with handheld cameras work,
16 didn't you?

17 A. Correct.

18 Q. It didn't work without those algorithms.

19 A. Correct.

20 Q. And a majority of those you wrote internally to USAA.
21 Correct?

22 A. Yes.

23 Q. And you also had some vendor technologies that were
24 incorporated that we talked about earlier from Mitek and All
25 My Papers. Correct?

1 A. That is correct.

2 Q. But you essentially at USAA wrote all the algorithms for
3 extraction of the check image from an environment a 3D
4 environment like you get with a camera to reduce the image to
5 a 2D image. Correct?

6 A. Correct.

7 Q. And that writing of those algorithms took a couple of
8 years, didn't it?

9 A. For commercialization purpose, yes.

10 Q. The algorithms to be written and completed took a couple
11 of years. Correct?

12 A. For -- again, it went through the journey of invention
13 and then it went to the commercialization aspect of it, yes.

14 Q. So I want to ask you just about how long it took to write
15 the algorithms that were used. Okay?

16 A. Yes, sir.

17 Q. It took you a couple of years to write those algorithms,
18 didn't it?

19 A. It might have. I'm not sure about the time frame.

20 Q. Well, did you write any of the algorithms?

21 A. I personally did not write those algorithms.

22 Q. So you can't tell us how long it took.

23 A. No.

24 Q. But you know from Mr. Medina that it took him a couple of
25 years to write the algorithms that he put into this system.

1 Correct?

2 A. He hasn't told me the actual amount of time he took,
3 yeah.

4 Q. So can you tell the ladies and gentlemen on our jury how
5 long it took to write those algorithms?

6 A. I don't have a timeline, exact timeline, on how long it
7 took. We released the product -- we had a working prototype
8 that led to commercialization into an actual product that went
9 out to our members, but I can't tell exactly the amount of
10 time Mr. Medina or others spent time on coding the algorithms.
11 So...

12 Q. But you released the product in 2009.

13 A. Yes, sir.

14 Q. And you had a working prototype in September of 2008.

15 A. That is correct.

16 Q. And you -- it took you quite a while, you would agree
17 with that, to write these algorithms, wouldn't you?

18 A. I wouldn't say it was quite a while.

19 Q. Okay. Take another look at your deposition, if you
20 would, Mr. Prasad. Look at page 85, line 17, please, and the
21 answer that follows at page 85, lines 18 through 21.

22 A. Yes, sir, I see that.

23 Q. Okay. And does that refresh your recollection that it
24 took quite a while to write the algorithms?

25 A. That is what I say there, yes.

1 Q. Okay. And you conceptualized a lot of the things that you
2 were working on in 2008 for the use of a mobile device or a
3 handheld mobile device in 2008. Correct? That's when you
4 conceptualized them?

5 A. For a commercialization, yes.

6 Q. And a concept is -- a concept is like an idea. Correct?

7 A. Not always.

8 Q. Okay. When you say you conceptualized something, that means
9 you conceived of it. Correct?

10 A. Not always.

11 Q. Okay. The algorithms that you developed at USAA, you
12 didn't think those algorithms were obvious, did you?

13 A. No, sir.

14 Q. You thought they were non-obvious?

15 A. Correct.

16 Q. Even with somebody of your level of education, skill, and
17 experience, you thought they were non-obvious?

18 A. Yes, sir.

19 MR. SHEASBY: Your Honor, I object to this line of
20 questions. I'd like to approach. I think a door has been
21 opened.

22 THE COURT: Approach the bench, counsel.

23 (The following was had outside the hearing of the
24 jury.)

25 THE COURT: What's the issue, Mr. Sheasby?

1 MR. SHEASBY: Obviousness is not part of the case,
2 and he just talked about whether something is obvious or not
3 obvious. And so I object to that, and I'd like an instruction
4 that there's no dispute that the patent is not obvious.

5 THE COURT: The jury's heard nothing about
6 invalidity based upon obviousness. The only way they would
7 know to accept that word is in its plain and ordinary
8 colloquial meaning. I think it makes it worse if I try to
9 instruct them otherwise.

10 So I'm going to overrule that objection.

11 MR. SHEASBY: Then I have a new objection. I'd like
12 Mr. Stone to move on and stop speaking about obviousness.

13 THE COURT: Well, obviousness is a term of art and
14 of certain legal application in this area of the law. It also
15 has a plain colloquial meaning.

16 I'm not going to instruct Mr. Stone not to use the word
17 'obvious,' but I will call it to everybody's attention that
18 perhaps, where appropriate, a different word choice to make
19 the same point would be appropriate.

20 MR. STONE: And I'm trying when I can.

21 THE COURT: All right. Let's move on.

22 MR. STONE: Thank you.

23 (The following was had in the presence and hearing
24 of the jury.)

25 THE COURT: Let's proceed. Objection's overruled.

1 MR. STONE: Thank you.

2 Q. (BY MR. STONE) You were shown a document earlier which
3 was a May of 2007 document. Do you recall that?

4 A. I don't, sir.

5 Q. Okay. I think it's 1124, but I'm not sure.

6 MR. STONE: Oh, no. Take it down. I'll come back
7 to it.

8 Q. (BY MR. STONE) You were shown a document that talked
9 about researching the viability for USAA to take check
10 deposits via cellular camera phones with internet access. Do
11 you recall that?

12 A. I'm not sure I recall that document, but if it can be
13 brought up on the screen.

14 Q. Let me ask you, viability means to you the feasibility of
15 doing something?

16 A. At a general term, yes.

17 Q. Okay. And that was something that along the way, as you
18 worked on research projects, you would assess whether the
19 research project was viable to go ahead and develop it into
20 something that you might later commercialize. Correct?

21 A. When you're talking in the technical --

22 Q. I am.

23 A. -- aspect? Yes.

24 Q. So the process that you would go through at USAA was you
25 would conceive of an idea. That would be the first step.

1 Correct?

2 A. Right.

3 Q. Then you would do research and experimentation to
4 determine if the idea was viable, if it could be made to work.
5 Correct?

6 A. At the technical level, yes.

7 Q. And then if you felt at the technical level it was viable
8 and could be made to work, then you might, if it made sense
9 from a business perspective, take whatever additional steps
10 were necessary to commercialize it. Correct?

11 A. That is correct.

12 Q. So that three-step process is what USAA went through on
13 many different projects, including the ones related to
14 Deposit@Home and Deposit@Mobile. Correct?

15 A. It would not be three-step all the time, no.

16 Q. But you went through it with many of the projects.

17 A. Many of them would go through something similar, yes.

18 Q. And you had L levels within the company which you
19 designated the level at which a project was at. Correct?

20 A. Correct.

21 Q. And the software modules that you wrote for capturing
22 camera check images in connection with your research project
23 at USAA were written beginning in spring of 2007. Correct?

24 A. For commercialization. Correct.

25 Q. Take a look again at your deposition transcript, Mr.

1 Prasad, if you would, page 94, lines 10 through 16.

2 A. Yes, sir. I see that.

3 Q. Okay. Does that refresh your recollection that you
4 started writing software modules for capturing camera images
5 in connection with the research project that was ongoing at
6 USAA during the spring of 2007?

7 A. Yes. So this is research after invention. Correct.

8 Q. Okay. So this is what we described earlier as you
9 concepted the idea, and then you started doing the research.
10 This is step two?

11 A. Correct.

12 Q. And when the iPhone was released, you switched your
13 efforts from the digital camera to the iPhone. Correct?

14 A. Yes, sir.

15 Q. They started working on algorithms for the iPhone after
16 it was released in June of 2007. Correct?

17 A. Correct.

18 Q. Nobody had started work on those before then, had they?

19 A. Not for the iPhone, no.

20 Q. Now, when you came out with the product ultimately
21 Deposit@Mobile, you gave it a new name. Correct?

22 A. I'm sorry, sir. I don't understand the question.

23 Q. It was no longer Deposit@Home. It was Deposit@Mobile.

24 A. Yes. Yes, it was.

25 Q. And that was released after you had a working prototype

1 internally. Right?

2 A. Correct.

3 Q. And the working prototype was September of 2008.

4 A. Correct.

5 Q. And then after you had released it, you conceived of the
6 idea that maybe you could use the phone and software on the
7 phone to decide whether they could -- it would take the
8 picture as opposed to the human deciding when to take the
9 picture. Correct?

10 A. No, sir, that's not correct.

11 Q. That idea was conceived of in the time period when you
12 were first releasing Deposit@Mobile, wasn't it?

13 A. No, sir. The idea was not conceived then at that point.

14 Q. Okay. You filed a patent application on it in 2009.

15 A. 2009 was a different patent application.

16 Q. That's what I'm asking you about.

17 A. Oh, okay.

18 Q. I'm sorry. Maybe I confused you, and I apologize.

19 A. No, sir. Sorry about that.

20 Q. Let me be clear. Switching topics to the idea of
21 auto-capture.

22 A. Okay. Got it.

23 Q. The idea of auto-capture was conceived of in 2009 time
24 frame. Correct?

25 A. 2008 time frame.

1 Q. 2008 time frame.

2 A. Correct.

3 Q. And you started work on it then. Correct?

4 A. We were not allowed to commercialize it yet by the
5 business, but we had started writing some aspects of it.
6 Correct. You're right.

7 Q. And so what was involved with auto-capture was you needed
8 to replace the human making a decision of I think the image
9 that I see in my camera or my phone looks good enough that I
10 should take it, to take that human interaction and make it in
11 software that would be on the phone. Correct?

12 A. That was one aspect of it, yes.

13 Q. Okay. And in order to do that, you had to figure out how
14 is this software going to know when the resolution is good
15 enough. Correct?

16 A. Not just the resolution, but a lot of criteria,
17 monitoring criteria for that.

18 Q. Okay. There were a lot of monitoring criteria that had
19 to be satisfied that a human sort of does instinctively that
20 you had to teach the software how to do.

21 A. Correct, sir.

22 Q. And I may not list them all, and you can add to my list,
23 but the monitoring criteria that you had to teach the software
24 to do included: Is it in focus? Is the resolution good
25 enough? Is the lighting good enough? Can I see the

1 difference between the check edge and the background? Is it
2 skewed or is it more or less straight? Is it in some fashion
3 otherwise wavy? All of those factors about it, are there
4 shadows on it, you had to teach the software how to adjust for
5 those monitoring criteria. Correct?

6 A. Yes, sir.

7 Q. Okay. And the monitoring criteria, in order to teach the
8 software how to do it, they have to be within pre-determined
9 ranges. Correct?

10 A. In many cases they were, yes.

11 Q. I mean, you have to say this lighting is not enough,
12 which need more lighting so don't take the picture
13 automatically. The crookedness of the check is too much,
14 don't take the picture yet, and so on. Correct?

15 A. Not for all -- each of the criteria, no.

16 Q. But for many of the criteria, you would agree?

17 A. Yes.

18 Q. So for many of the criteria, you had to know what the
19 ranges were that would make this work.

20 A. These are algorithms that were well-known in the field at
21 the time. So there's no actual specific ranges you would need
22 to specify at the time.

23 Q. Well, you wrote a lot of algorithms for auto-capture at
24 USAA, didn't you?

25 A. Yes, sir.

1 Q. And each of those algorithms came with a set of
2 pre-determined criteria or ranges that had to be met.
3 Correct?

4 A. I would like to go through specific ones because not all
5 of them have ranges. Yes.

6 Q. Can we agree that some of them have ranges?

7 A. Yes.

8 Q. Okay. And the ranges had to be determined as a result of
9 doing research in your laboratory. Correct?

10 A. Yes.

11 Q. Because you had to do the research to say, this is not
12 enough light, for example, or this is too much light.
13 Correct?

14 A. Well, the algorithms that are already available as a
15 computer science or an image capture analysis algorithm, that
16 would already define those ranges. That was public
17 information in some sense.

18 Q. But the ones you wrote internally, you wrote your own
19 ranges. Correct?

20 A. We just used our internal system to use some of those
21 well-known techniques, and we had our own internal ranges,
22 yes. That's right.

23 Q. And Mr. Medina testified, didn't he -- let me withdraw
24 that.

25 Mr. Medina wrote a number of these algorithms, didn't he?

1 A. Yes, he did.

2 Q. And Mr. Medina found that some of the publicly available
3 algorithms for certain things were insufficient, didn't he?

4 A. He might have. I'm not sure.

5 Q. The MICR line that we looked at earlier, you would agree
6 it's crucial for the MICR line to be read by the software,
7 wouldn't you?

8 A. Yes, sir.

9 Q. And in that instance where you can't read the MICR line,
10 it's not a check image that is acceptable for deposit, is it?

11 A. That's not always correct.

12 Q. And go ahead. Tell me when it's not correct. When is an
13 unreadable MICR line acceptable for deposit?

14 A. You can process a check image as long as you get the
15 critical elements of the MICR line. You don't need to get
16 everything.

17 Q. Okay. You need to get the account number?

18 A. Yes, sir.

19 Q. Correct? And you need to get the bank routing number.
20 Correct?

21 A. Correct.

22 Q. One thing you don't need to get is the check number?

23 A. And there are other numbers on the line you didn't need.

24 Q. But the two numbers you have to be able to read are the
25 bank routing number and the account number. We can agree on

1 that?

2 A. You don't have to be, no.

3 Q. It's not acceptable for deposit if you can't read those
4 two numbers, is it?

5 A. You can reconcile those later if you don't get to read
6 the whole thing correctly.

7 Q. So somebody manually can go look at the check image and
8 say, I'll figure out which bank the check is written on.

9 A. Typically banks do that, yes.

10 Q. And you would go look at it and say, I'll figure it out
11 by manually reading it which account is drawn on.

12 A. That is correct.

13 Q. But that requires a time period for human intervention,
14 doesn't it?

15 A. That is true.

16 Q. So you can't instantly make the decision on the system
17 that you're going to go ahead and take the money out of one
18 account and put it into another account until you've had that
19 human interaction to know where to go to get the money.

20 Correct?

21 A. You never take the money out instantly at all ever. You
22 can always deposit it instantly.

23 Q. And you don't know where to go get the money until you've
24 been able to read the information on the MICR line. Correct?

25 A. Yeah. You don't need that for the deposit, yes.

1 Q. And you would agree with me, wouldn't you, that
2 auto-capture is extremely complex?

3 A. I would, yes.

4 Q. And it's not simple to implement. Correct?

5 A. No, it's not.

6 Q. And it's not simple to even think of the idea. Correct?

7 A. Yes.

8 Q. And at USAA, after you thought of the idea of doing
9 auto-capture, you had people testing different things to come
10 up with which monitoring criteria you would use. Correct?

11 A. We had conceived the idea as part of the specification of
12 the patents, and we knew that those would be at the minimum
13 required to be able to satisfy. Correct.

14 Q. But you had people doing tests to decide which monitoring
15 criteria you should use in Deposit@Mobile. Correct?

16 A. We were testing for whether it can become a viable
17 commercial product, correct.

18 Q. And to see which monitoring criteria to use. Correct?

19 A. Not to use, no. That's not correct.

20 Q. Take a look, if you would, at your deposition at page
21 197, line 15, through 198, line 8.

22 A. Can you tell me the line numbers?

23 Q. Yes. 197, line 15, through 198, line 8. Just let me
24 know when you've read it. I don't want to rush you.

25 A. Yes, sir. I have read it. Thank you.

1 Q. Okay. And you would agree, would you not, that after you
2 thought of the idea of doing auto-capture, you had people at
3 USAA testing different criteria to see which ones you would
4 need to put in?

5 A. Yes. Not creating them, but which ones to put in,
6 correct.

7 Q. Testing which ones to put in. Correct?

8 A. Exactly, yeah.

9 Q. Okay. And you ended up putting in some that you don't
10 even mention by name in your patent. Correct?

11 A. For most of the image criteria, I think we captured all
12 of it on the patent.

13 Q. Do you include a criteria that measures the movement of
14 the camera in your use of the camera when you -- in your use
15 of the app when you release it?

16 A. For the image, yes.

17 Q. Yes.

18 A. We do.

19 Q. So you call that the antishake criteria, don't you?

20 A. The shaking is a device aspect, not a image aspect, no.

21 Q. But you -- but if the camera or the phone is shaking,
22 that affects the image, doesn't it?

23 A. Yes. That is reflected in the other monitoring criteria,
24 correct.

25 Q. And that's not listed in the patent, is it?

1 A. The image ones are listed in the patent.

2 Q. The shaking criteria is not listed in the patent, is it?

3 A. Yes, the shaking criteria is not because it's not an
4 image criteria, yes.

5 Q. And the testing that you did, the research testing for
6 auto-capture, was done in 2010. Correct?

7 A. We started somewhere -- I don't exactly know the dates,
8 sir, but it started somewhere in 2010-'11 time frame, I would
9 think.

10 Q. And the research testing for auto-capture continued until
11 2012 at least, didn't it?

12 A. Yes, sir.

13 Q. You didn't start development of the product until after
14 2012, did you?

15 A. In 2012, we got the commercial approval to commercialize
16 it.

17 Q. Okay. So up until sometime in 2012, you were doing
18 research testing. Correct?

19 A. That is correct.

20 Q. And that's with respect to auto-capture. Correct?

21 A. Yes, sir.

22 Q. Okay. You would describe the change from using a scanner
23 to using a camera phone as a paradigm shift, wouldn't you?

24 A. I would.

25 Q. Yes.

1 MR. STONE: And if we could bring up DX 1110.

2 Q. (BY MR. STONE) This was the document I couldn't remember
3 the number of earlier.

4 MR. STONE: And if we could go to page 12.

5 Q. (BY MR. STONE) You describe at the top, initial tests on
6 over 1200 check images taken from four cameras. Correct?

7 A. Correct.

8 Q. And these were testing to see whether the library that
9 All My Papers had provided you was sufficient. Correct?

10 A. The original library, correct.

11 Q. And at that time you concluded the original library was
12 not sufficient. Correct?

13 A. Yes, sir.

14 Q. And the reason you determined it was not sufficient was
15 because the MICR information was only read 25 percent of the
16 time. Correct?

17 A. That's correct.

18 Q. And so you needed to change the library. Correct?

19 A. That is correct.

20 Q. And that change occurred after this presentation was made
21 or about the time of this presentation. Correct?

22 A. No. It was done before, before the presentation.

23 Q. Before the presentation, because you report on it in a
24 later page, don't you?

25 A. That is correct.

1 MR. STONE: If we can go to the next page.

2 Q. (BY MR. STONE) And then there we see on the second
3 bullet, what you had done with this new library was you had
4 tested five images. Correct?

5 A. That's correct.

6 Q. And, in fact, you didn't test them; All My Papers tested
7 them. Right?

8 A. That is correct.

9 Q. And All My Papers reported back, we've got success with
10 five images. Correct?

11 A. That is correct.

12 Q. And then you sent them more images to test. Correct?

13 A. I think so. I'm not sure.

14 Q. And when you told us earlier today that you'd had a
15 hundred percent success rate, you were referring to the five
16 images, weren't you?

17 A. Not just the five, no.

18 Q. Well, you had -- with the earlier library, you had only a
19 25 percent success rate. Right?

20 A. Correct.

21 Q. And so by the time you gave this report -- and you
22 know -- you did this report, didn't you?

23 A. Yes.

24 Q. Okay. When you did this report, at the time of it you
25 only had results for five images. Correct?

1 A. That is correct.

2 Q. Okay. And those five went through.

3 A. Yes.

4 Q. And this is December of 2007, isn't it?

5 A. That is correct.

6 Q. Okay. And there was the phases for the development of
7 auto-capture --

8 MR. STONE: If I can go back to that one more time.

9 Q. (BY MR. STONE) -- were research phase. Correct? That
10 was, after conception, there was research.

11 A. Well, conception would be invention, and then you'd be
12 research.

13 Q. And then after research, you developed a research
14 prototype.

15 A. Yes, in many cases.

16 Q. And then you would do research testing?

17 A. It would be -- again, not everything would be happening
18 in exactly those steps, but, yes, we would do testing, too,
19 yes.

20 Q. Okay. And then if the testing and the research and the
21 experimentation gave you reason to think it would be worth
22 doing it, you would then move to commercialization.

23 A. That is not true, no.

24 Q. Not all projects move to commercialization, do they?

25 A. Not all projects move to commercialization, no. You're

1 right.

2 Q. And so for the particular project of auto-capture, you
3 started with conception?

4 A. Yes.

5 Q. And then you went to research?

6 A. Yes.

7 Q. And then you went to research prototype?

8 A. Which is commercialization, yes.

9 Q. And then you went to research testing?

10 A. As part of commercialization, yes.

11 Q. Okay. So at some point you go to commercialization.

12 Correct?

13 A. And so --

14 Q. Just yes or no.

15 A. Yes. Yes.

16 Q. And so I think what I want to make sure we all focus on
17 is there is a period of time during which you do viability
18 research. Correct?

19 A. Technical viability, yes.

20 Q. Okay. And is there a time when you do technical
21 experimentation?

22 A. For commercialization, yes.

23 Q. But you do technical experimentation to see if it's even
24 viable.

25 A. From a technical standpoint, whether it would be proof of

1 concept. Right, yes.

2 Q. When did you settle on which particular monitoring
3 criteria would be used in your prototype for auto-capture?

4 A. So we conceived the idea in 2008 and had a number of
5 monitoring criteria, which is all part of the specification,
6 and we continued to test those out as the journey towards
7 commercialization for auto-capture moved into 2012 and 2013.

8 Q. And in 2012 or 2013, had you settled on which monitoring
9 criteria you thought it was appropriate to use?

10 A. Yes, we had.

11 Q. And by 2012 or 2013, is that when you settled upon what
12 were the appropriate pre-determined ranges?

13 A. For those that applied to -- that needed ranges, yes.

14 Q. Okay. And how many of those criteria needed
15 pre-determined ranges, as you recall?

16 A. I can't recall how many would need that, sir, at this
17 point.

18 Q. More than five?

19 A. I'm not sure.

20 Q. Any estimate you can give us of how many?

21 A. I'd have to really look at the code at this point to see
22 which one needed the range, which one did not.

23 Q. If we looked at the code, could we determine, if they
24 have a pre-determined range in there, that they must have
25 needed it?

1 A. Possibly, yes.

2 Q. Okay. Thank you, Mr. Prasad.

3 MR. STONE: Pass the witness, Your Honor.

4 THE WITNESS: Thank you, sir.

5 THE COURT: Is there redirect? Then let's proceed
6 where with redirect examination by the Plaintiff.

7 MR. SHEASBY: Let's go to PX 003.

8 REDIRECT EXAMINATION

9 BY MR. SHEASBY:

10 Q. Mr. Stone spent a significant period of time talking to
11 you about commercialization efforts. Do you recollect that?

12 A. Yes, I do.

13 Q. In your experience with over 140 patents, does
14 commercialization efforts have any relevance to invention?

15 A. No.

16 Q. In your experience with over 140 patents, what document
17 is used to determine enablement?

18 A. The specification of the patent.

19 Q. Mr. Stone examined you for an hour and a half. Did he
20 show you a single passage from the patent?

21 A. No.

22 MR. SHEASBY: Let's go to PDF page 24. And I'll be
23 there in a second, Mr. Huynh. And can you turn to
24 column -- let's blow up column 7, lines 50 through 64. Column
25 7, lines 50 through 64, Mr. Huynh.

1 Q. (BY MR. SHEASBY) What does this passage tell the Patent
2 Office and to other skilled engineers who read your patents?

3 A. We are describing digital cameras to be used with this
4 patent.

5 MR. STONE: Objection, Your Honor. I think this
6 calls for expert testimony to say what the specification tells
7 the Patent Office or others.

8 MR. SHEASBY: I disagree with that.

9 THE COURT: He can testify. He's one of the
10 inventors on the patent. He can testify to what his patent
11 application means within his understanding.

12 MR. SHEASBY: Thank you, Your Honor.

13 MR. STONE: Thank you.

14 Q. (BY MR. SHEASBY) Please answer the question, Mr. Prasad.

15 A. Thank you, sir. So this particular thing talks about
16 customer instructions they need to follow to take a digital
17 photograph from a digital camera and what they need to do to
18 get a successful check image capture.

19 Q. Did you actually apply these instructions in the
20 graphical user interface?

21 A. Yes, sir.

22 Q. Did it work?

23 A. Yes, it did.

24 Q. So Mr. Stone spent a long time using jargon. He talked
25 about his histograms and skewing algorithms and segmentation

1 and extraction techniques.

2 A. Yes, sir.

3 Q. Did all of those techniques exist publicly at the time of
4 your work?

5 A. Yes.

6 Q. Does USAA build special versions of these types of
7 technologies to thrill its members?

8 A. Yes, we do.

9 Q. Do you need to have USAA's special versions to thrill the
10 members?

11 A. Yes.

12 MR. STONE: Objection, Your Honor.

13 THE COURT: Just a minute. Just a minute.

14 State your objection, counsel.

15 MR. STONE: It calls for expert opinion.

16 MR. SHEASBY: He asked him extensively about
17 algorithms in his direct -- in his cross-examination, Your
18 Honor.

19 THE COURT: He did, and I believe substantively the
20 door is opened. You just can't ask this witness for pure
21 opinion, speculative testimony, but he can testify of his own
22 personal understanding as one of the inventors.

23 Q. (BY MR. SHEASBY) Could you have --

24 THE COURT: I'll overrule the objection. Restate
25 the question.

1 Q. (BY MR. SHEASBY) Could you have built the commercial
2 system with mobile phones without waiting for USAA's special
3 algorithms?

4 MR. STONE: Your Honor, I object again. This just
5 needs to be clear that it's his opinion.

6 MR. SHEASBY: It's his opinion as the inventor of
7 the patent.

8 THE COURT: Well, it needs to be clear that -- it's
9 his opinion is not a proper objection. If the question
10 doesn't call for that, then you can object that it calls for
11 opinion testimony.

12 MR. STONE: I do. That's my objection.

13 THE COURT: All right. I'll overrule that
14 objection.

15 MR. STONE: Thank you, Your Honor.

16 Q. (BY MR. SHEASBY) Please answer the question, Mr. Prasad.

17 A. Can you repeat the question, sir?

18 Q. Would a -- could you have built the system without
19 waiting for USAA's special algorithms?

20 A. No.

21 Q. And why is that? Why did you have to have USAA's special
22 algorithms? What about USAA makes that important about USAA
23 needs for its customers?

24 A. So these algorithms essentially teaching in the
25 specification how to actually capture the check image from a

1 digital camera successfully. And these are complex
2 algorithms, and that's the reason why we teach them inside the
3 specification.

4 Q. So the algorithms, the special algorithms that Mr. Stone
5 was referring to, where are they disclosed?

6 A. In the specification of the patent.

7 MR. SHEASBY: Let's go to PX 0001, page 21, column
8 4, lines 3 through 12.

9 Q. (BY MR. SHEASBY) This is a portion of your 2009 patent
10 application. Do you see that?

11 A. I do, yes.

12 Q. What do these algorithms teach other engineers to do?

13 A. These are the image monitoring criteria that engineers
14 can use to extract the check image successfully.

15 Q. With the algorithms presented in your patent application,
16 can you build USAA's system?

17 A. Yes.

18 Q. Does the 2009 patent have histogram algorithms for image
19 extraction?

20 A. Yes, they do.

21 Q. Are they automatic?

22 A. Yes.

23 Q. Did USAA have image extraction in Deposit@Home?

24 A. Yes.

25 MR. SHEASBY: Your Honor, may I approach the counsel

1 table?

2 THE COURT: You may.

3 MR. SHEASBY: Thank you.

4 Q. (BY MR. SHEASBY) Mr. Stone asked you to read portions of
5 your deposition. Is that correct?

6 A. That is correct.

7 Q. He didn't show the ladies and gentlemen of the jury any
8 portions of your deposition, though. Is that correct?

9 A. That is correct.

10 Q. And he talked about when the invention of using a
11 handheld device to capture images was created by USAA. Do you
12 remember that?

13 A. Yes, I do.

14 MR. SHEASBY: I want to display page 33, lines 2
15 through 21.

16 MR. STONE: Your Honor, improper use of a deposition
17 that has not been used for impeachment.

18 MR. SHEASBY: It's being used for completeness, Your
19 Honor.

20 MR. STONE: He should not ask the witness he's not
21 impeaching. I simply asked the witness to refresh his
22 recollection.

23 THE COURT: I think it's permissible under the
24 doctrine of additional completeness.

25 MR. SHEASBY: Thank you, Your Honor.

1 THE COURT: It needs to relate to the segments of
2 the deposition that have been used earlier.

3 MR. SHEASBY: It does, Your Honor.

4 THE COURT: All right. Let's proceed.

5 MR. SHEASBY: So let's go to page 33, lines 2
6 through 21.

7 Q. (BY MR. SHEASBY) "So for the first time you had the
8 idea, that USAA had the idea of using the display of a mobile
9 device with an integrated camera to help the user take the
10 picture was in the October/November 2006 time frame and you
11 continued to develop that into 2007. Is that fair?"

12 Answer, "I would -- I would still say it's 2005. The
13 reason for that is that we knew that the display does not have
14 to be part of the device. Right? We didn't have to have the
15 same form factor for both the display and the camera. We knew
16 that it can be separate. It doesn't have to be just like the
17 scanner bed. Right? Deposit@Home was for scanners. Scanners
18 is a camera, but a scanner is not a display. So scanner -- we
19 knew that scanner can be a camera. And so the concept came
20 with the display, it can still be your home computer. So I'd
21 say the concept goes all the way back to June of 2005."

22 Do you stand by that testimony?

23 A. I do.

24 MR. SHEASBY: Let's pull that down.

25 Q. (BY MR. SHEASBY) And Mr. Stone talked to you about the

1 concepting of the iPhone. Is that correct?

2 A. Correct.

3 Q. Now, the iPhone was not released until June of 2007. Is
4 that correct?

5 A. Correct.

6 Q. But there were smartphones and other types of those
7 devices before 2007. Is that correct?

8 A. That is correct.

9 Q. Did you describe a smartphone in your patent?

10 A. Yes.

11 Q. Was that described in figure 3?

12 A. Correct.

13 MR. SHEASBY: Let's pull up that figure. '605
14 Patent, figure 3. I believe that's on page -- it's on page
15 16, Mr. Huynh.

16 Q. (BY MR. SHEASBY) Now, Mr. Stone said you -- do you use
17 the little words mobile phone or mobile device in your patent?
18 Do you remember that?

19 A. I do.

20 Q. Do the individual names you used to describe a device
21 have relevance to an engineer?

22 A. No, it does not.

23 Q. He didn't show or even engage with you on figure 3 of
24 your patent, did he?

25 A. No.

1 MR. SHEASBY: Let's go to PX 1126 at page 6.

2 Q. (BY MR. SHEASBY) So Mr. Stone tried to suggest that TATA
3 Consultancy was not part of the USAA development team. Do you
4 remember that?

5 A. I do remember that.

6 Q. Was TATA Consultancy, were those trained engineers that
7 were part of your team that helped you build the commercial
8 system?

9 A. Yes, they were.

10 MR. SHEASBY: And I want to turn to page -- I want
11 to turn to that -- I think it's page 3, Mr. Huynh, of that
12 document. Scroll down a little more. Scroll down a little
13 more. One more. One more. Let's pull it up.

14 Q. (BY MR. SHEASBY) Now, Mr. Stone, he said something that
15 it pricked my ear. He kept saying, in your laboratory did you
16 test for mobile phones in October of 2006? In your laboratory
17 did you test for handheld devices in October of 2006.

18 In October of 2006, was the original commercial system
19 still in the laboratory or was it commercially released?

20 A. Commercially released.

21 Q. And do the records show that in October of 2006 in the
22 commercial release of the product, customers were using
23 handheld digital cameras to successfully deposit checks?

24 A. Yes, they were.

25 Q. And so in 2006 the commercial system wasn't in the lab

1 anymore. Fair?

2 A. That is correct.

3 Q. It was at the bank.

4 A. Yes.

5 Q. And Mr. Stone didn't ask you about what was going on at
6 the bank, did he?

7 A. No, he did not.

8 MR. SHEASBY: Let's go to PX 1167. Let's go to the
9 next page.

10 Q. (BY MR. SHEASBY) So USAA has had commercial systems for
11 consumer remote deposit from 2006 to today. Is that fair?

12 A. Yes, sir.

13 Q. When did you stop improving those algorithms or stop
14 improving those systems?

15 A. Sorry. Can you repeat the question?

16 Q. When did you stop improving the algorithms in your
17 systems? When did you stop writing them?

18 A. We never stopped writing them.

19 Q. So when Mr. Stone was suggesting to the ladies and
20 gentlemen of the jury it took a -- you've been working on this
21 for a very, very long time, was that a fair description of how
22 long it took to make the first commercial version?

23 A. No.

24 Q. So I'm showing this Deposit@Home document, and it talks
25 about a target of September --

1 MR. SHEASBY: Let's scroll down.

2 Q. (BY MR. SHEASBY) It says Deposit@Home for iPhone, L4
3 research effort. Do you see that?

4 A. Yes, I do.

5 Q. And he was -- remember when Mr. Stone was suggesting to
6 the jury that research was part of invention at USAA?

7 A. Yes.

8 Q. Is research -- is an L4 research invention or is it
9 commercial?

10 A. This is commercial.

11 Q. And so when Mr. Stone was suggesting to the jury that
12 research was part of invention as opposed to
13 commercialization, was he being accurate or inaccurate with
14 the jury?

15 A. Inaccurate.

16 Q. And it talks about a timeline of three months to build
17 the iPhone app. Is that correct?

18 A. That is correct.

19 Q. And did that timeline hold?

20 A. Yes, it did.

21 Q. And was this for the actual iPhone app that was
22 downloaded on the phone?

23 A. Correct.

24 Q. It took three months.

25 A. Yes.

1 Q. And Mr. Stone suggested to the jury it took years and
2 years and years. Is that fair?

3 A. I would say that, yes.

4 Q. And do you think it was fair of him to suggest that to
5 the jury?

6 A. No, sir.

7 MR. SHEASBY: I pass the witness.

8 MR. STONE: Your Honor, may I have two questions?

9 THE COURT: Sir?

10 MR. STONE: May I have two questions, additional
11 questions?

12 THE COURT: You may have additional questions on
13 cross-examination, two questions or as many as you want.

14 RECROSS EXAMINATION

15 BY MR. STONE:

16 Q. Mr. Prasad, the October 2006 example that you were just
17 asked about by Mr. Sheasby of actual users using the
18 commercial Deposit@Home system, do you remember that question?

19 A. Yes, sir.

20 Q. Mr. Sheasby asked you, Well, wasn't it true that there
21 was actual use of cameras in the real system in October of
22 2006. He asked you that. Right?

23 A. Yes, sir.

24 Q. Even though you hadn't been doing any experiments on that
25 in the laboratory as of that time. Correct?

1 A. That is correct.

2 Q. And the one instance you know of of somebody using it
3 with the real system was the webcam by one customer in October
4 of 2006 that was reported in the email, Exhibit 1124, DX 1124,
5 that you and I talked about. Correct?

6 A. There are other cameras, sir.

7 Q. The only instance that you know of is the one instance
8 with the webcam in October of 2006. Correct?

9 A. No, that's not correct.

10 Q. Is there an email that talks about any other ones?

11 A. There's no email tied to it, no.

12 Q. In your deposition when we asked about whether anybody at
13 USAA, customer or employee of USAA, had deposited a check
14 using a digital camera as of October 2006, you told us the
15 webcam use was the only one, didn't you?

16 A. It was the webcam was one of them, but --

17 Q. You told us it was the only one, didn't you, Mr. Prasad?

18 A. I don't recall that, sir, as the only one, no.

19 Q. Can you identify the date of any other one?

20 A. I can't tell you the date, but we have seen -- we have
21 records of digital cameras being used.

22 Q. Have you been shown those records today?

23 A. Have I been shown? No, sir.

24 Q. Did Mr. Sheasby show you those records?

25 A. No, sir.

1 Q. And did you testify truthfully in your deposition?

2 A. Yes, sir.

3 Q. And did you do everything you could then to prepare to
4 give us your truthful testimony?

5 A. Yes, sir.

6 Q. And if in your deposition you told us that the only one
7 you knew of was the one webcam in October of 2006, would that
8 be true?

9 A. If it says that, that would be true there, yes.

10 Q. Okay. And you didn't do any experiments in your
11 laboratory before that particular customer used a webcam to
12 deposit a check image in the Deposit@Home system, did you,
13 sir?

14 A. Yes, sir. We did not.

15 Q. You did not. Thank you very much.

16 MR. STONE: Pass the witness.

17 MR. SHEASBY: Your Honor, may I approach just
18 briefly?

19 THE COURT: Approach the bench.

20 (The following was had outside the hearing of the
21 jury.)

22 MR. SHEASBY: Your Honor, there's an exception to
23 the hearsay document in which they're questioning whether this
24 witness' recollection is accurately reflected. We actually
25 have business records that were produced in this case showing

1 a number of cameras that had been produced. It was hearsay to
2 us so we couldn't admit it as an exhibit, but now that the
3 hearsay has been overruled, I would like to proffer it as an
4 exhibit.

5 THE COURT: What's the response of the Defendant?

6 MR. STONE: There's no basis -- it's not an exhibit
7 that's in the case. I don't know what exhibit this is. I was
8 questioning the witness' testimony. The witness wasn't shown
9 any exhibits and the witness testified under oath in his
10 deposition this was the only instance he knew of.

11 THE COURT: I'm not going to admit an exhibit at
12 this point. If you want to take this witness on further
13 direct examination and use a demonstrative with him, I don't
14 have a problem with that, but I'm not going to admit any new
15 documents in the middle of a trial.

16 MR. STONE: Well, these would be documents that
17 aren't pre-admitted, for sure, and they are not on the exhibit
18 list.

19 THE COURT: That's why they could only be used as a
20 demonstrative and not as an exhibit.

21 MR. STONE: I don't know if they've been produced,
22 Your Honor. They shouldn't be used as a demonstrative.

23 THE COURT: Well, you need to locate them,
24 Mr. Sheasby, you need to show them to Mr. Stone, and if he has
25 a problem with them, he needs to raise that with me before

1 they're used.

2 MR. SHEASBY: Okay. Thank you. I'll do that right
3 now.

4 THE COURT: All right.

5 (The following was had in the presence and hearing
6 of the jury.)

7 THE COURT: Counsel. You've reviewed that document.
8 Approach the bench.

9 (The following was had outside the hearing of the
10 jury.)

11 THE COURT: Tell me what we're talking about.

12 MR. SHEASBY: It's a document that was produced,
13 it's our records of the type of devices that were used, and it
14 includes digital cameras.

15 MR. STONE: It is undated so we don't know whether
16 it relates at all to the issue of October of 2006. It's an
17 undated -- I'm sorry.

18 MR. SHEASBY: I interrupted you, Mr. Stone. Please
19 continue.

20 MR. STONE: It's an undated document that has no
21 indication when it was prepared, and it doesn't -- can't even
22 tell by looking at it what's a camera and what's not a camera.

23 THE COURT: All right. If you want to take this
24 witness on redirect with that document -- it's been produced
25 in the case. If you want to identify he has personal

1 knowledge of it, then it can be used as a demonstrative to aid
2 his testimony.

3 MR. SHEASBY: Thank you.

4 THE COURT: Not as an exhibit.

5 MR. SHEASBY: I understand.

6 MR. STONE: Thank you, Your Honor.

7 (The following was had in the presence and hearing
8 of the jury.)

9 MR. SHEASBY: Let's pull up the document.

10 REDIRECT EXAMINATION

11 BY MR. SHEASBY:

12 Q. Does USAA have lists of the type of devices that are used
13 with its original Deposit@Home system?

14 A. Yes, sir.

15 Q. Does this reflect one of those lists?

16 A. Yes.

17 Q. What are the highlighted devices?

18 A. These are digital cameras.

19 MR. SHEASBY: I pass the witness.

20 THE COURT: Is there further cross?

21 MR. STONE: No further cross, Your Honor.

22 THE COURT: All right. You may step down,
23 Mr. Prasad.

24 THE WITNESS: Thank you, Your Honor.

25 THE COURT: You're quite welcome.

1 MR. SHEASBY: Your Honor, may we clear binders?

2 THE COURT: Just a moment. Have a seat, counsel.

3 Ladies and gentlemen, as if there wasn't enough to do
4 around here, I have set an emergency motion over the noon hour
5 that I have to take up. So I'm going to -- rather than press
6 right up until 12:00 noon, I'm going to send you to lunch a
7 little early so I can get that handled.

8 I'm going to ask you to take your notebooks with you to
9 the jury room over the lunch break. Lunch either should be
10 there or should be on its way to you shortly.

11 Please follow all my instructions, including, of course,
12 as you would expect me to remind you, not to discuss the case
13 with each other. And as soon as I can finish this unrelated
14 matter over the lunch break and you've had time for your
15 lunch, I'll get you back in here and we'll continue with the
16 next witness.

17 The jury's excused for lunch.

18 (Whereupon, the jury left the courtroom.)

19 THE COURT: Be seated, please.

20 Counsel, in reviewing what's previously been submitted,
21 I'm persuaded that a joint effort by both sides to revisit and
22 resubmit a newly-updated version of the proposed final jury
23 instructions and verdict form would benefit the Court.

24 Therefore, I'm going to order you to meet and confer and
25 jointly submit as a single document in Word form an updated

1 and newly proposed final jury instruction and verdict form by
2 3:00 tomorrow. It's to be delivered to my staff, as I say, in
3 Word format, electronically, by that time.

4 And where there are areas that the parties disagree, you
5 should either identify each other's competing submissions by
6 different color highlighting, different fonts, or some clear
7 indication noted on the submission so I can see where you
8 differ, and those differing provisions should be in that one
9 jointly submitted document, one right after the other so I
10 don't have to flip through various versions to look for them.

11 Also, when we met in chambers this morning about
12 overnight disputes, as everyone was walking out of the room
13 Mr. Bunt said, When are we going to take up Mr. Kennedy's
14 issues?

15 I said something like, We'll get to it.

16 And then after we got on the bench, I noticed in
17 reviewing what had been submitted overnight, I don't see any
18 disputes regarding Mr. Kennedy.

19 Are there live disputes regarding issues concerning
20 Mr. Kennedy that have to be addressed before he testifies?

21 MR. BUNT: It was my understanding that the
22 Defendant had two objections to slides, to demonstratives.

23 THE COURT: Well, that was not -- at least unless I
24 overlooked it, that wasn't in the binder that was submitted
25 overnight.

1 I'm going to direct both sides to meet and confer on that
2 issue over the lunch break and update me when we come back
3 from lunch as to whether there are, in fact, issues that need
4 to be presented to the Court or not.

5 MS. YOUNG: And, Your Honor, may I just clarify?

6 In the binder--and I apologize because it's not presented
7 very clearly--but there is a blue slip sheet in between the
8 discussion of the parties' disputes over deposition
9 designations, and then there are -- there is a submission
10 about the parties' disputes related to demonstratives after
11 that.

12 THE COURT: All right. Well, it's possible I
13 overlooked it. I still want both sides to meet and confer,
14 and if you can work it out, please do. If you can't, let me
15 know.

16 MS. YOUNG: Thank you, Your Honor.

17 THE COURT: All right. Unless you want to sit here
18 and listen to me take up a temporary restraining order in an
19 unrelated matter, you are excused for lunch and we will
20 reconvene as close to 1:00 as possible.

21 Court stands in recess.

22 (Lunch recess.)

23 THE COURT: Be seated, please.

24 Ms. Smith, Mr. Bunt, I understand we still have
25 demonstrative issues regarding Mr. Kennedy?

1 MR. BUNT: Yes, Your Honor. There are two issues.

2 THE COURT: I've reviewed the hidden disputes behind
3 the blue page over the lunch hour, and I'll be prepared to
4 talk about it with you at a recess later today.

5 MR. BUNT: Thank you, Your Honor.

6 MS. SMITH: Thank you, Your Honor.

7 THE COURT: Okay. Are we prepared to go forward
8 with the next witness, Plaintiff?

9 MS. GLASSER: Yes, Your Honor.

10 MR. LANTIER: Your Honor, may I ask for guidance on
11 one issue before we go forward?

12 THE COURT: What's that, counsel?

13 MR. LANTIER: Two issues very briefly. One is --
14 and this will come up with Doctor Conte. My understanding of
15 the Court's practice is that I should not be cross-examining
16 on prosecution history estoppel issues based on what Judge
17 Payne said during the pretrial conference.

18 I just wanted to confirm with Your Honor that that is the
19 rule that should apply here.

20 THE COURT: Well, let me say this. You should
21 fashion your cross-examination and comport yourself in this
22 court pursuant to the guidance given you by the magistrate
23 judge during the pretrial process.

24 MR. LANTIER: Thank you, Your Honor.

25 The second issue is, as Your Honor's aware, there's been

1 summary judgment that the version 4.20.1 is a non-infringing
2 alternative to three of the patents that are asserted here. I
3 just wanted to -- I didn't want to get crosswise with Your
4 Honor. Am I permitted to say to the jury that the Court has
5 ordered that, similar to the way we would say it about a
6 *Markman* ruling?

7 THE COURT: Tell me specifically what you would
8 propose to say.

9 MR. LANTIER: For example, a cross-examination
10 question might be, You understand that the Court has found
11 that version 4.20.1 is a non-infringing alternative to the
12 '432 Patent.

13 THE COURT: All right. Does Plaintiff have a
14 problem with that?

15 MS. GLASSER: Yes, absolutely, Your Honor. That was
16 not Judge Payne's ruling is the fundamental problem with it.
17 But I don't think that the parties should be telling the jury
18 about court orders other than the one court order that's
19 actually in their juror notebook which has the constructions
20 in it.

21 On the first issue, the motion for summary judgment was
22 about whether there's a factual dispute that three of the four
23 patents in this case infringe -- are infringed by the new
24 product that's not in this case. Obviously it's not a
25 non-infringing alternative just because it doesn't infringe or

1 nobody is contesting whether it infringes those three, and
2 Judge Payne made that very abundantly clear in his order.

3 We do contest that it's a non-infringing alternative, and
4 Judge Payne was clear that PNC bears the burden on that issue
5 and that that fact is not established.

6 So on those two bases, we would object. I think, as I
7 spoke with Mr. Lantier over the break, it's perfectly fine if
8 he wants to say in his cross something like, You didn't give
9 any testimony here today or you didn't say in your report that
10 the new version infringes those three patents. Correct.

11 And he can say presumably, correct.

12 But other than that, I don't think any of this is proper.

13 THE COURT: Mr. Lantier?

14 MR. LANTIER: I would just say, Your Honor, the text
15 of Judge Payne's order is that the Court -- and Your Honor --
16 Your Honor has confirmed it, the Court grants the motion that
17 4.20.1 is a non-infringing alternative to the '432 Patent.
18 That's the text of the order and what was included there, Your
19 Honor.

20 MS. GLASSER: Can I read the rest of it, Your Honor?
21 It says the opposite of that in other places.

22 THE COURT: Well, in reviewing some of the disputed
23 demonstrative slides for other witnesses, it seems that
24 version 4.20.1 has been determined not to literally infringe
25 three of the patents. Is that not the case?

1 MR. LANTIER: I don't think that there was any
2 argument about doctrine of equivalents infringement for those
3 patents with version 4.20.1. I believe that the order was
4 complete as to any type of infringement.

5 THE COURT: I'll review the orders at issue before
6 we get to that. Be sure that you seek guidance from the Court
7 before going into any of these matters and give me an
8 opportunity to look at the orders.

9 MR. LANTIER: Thank you, Your Honor.

10 THE COURT: All right. Let's bring in the jury.

11 (Whereupon, the jury entered the courtroom.)

12 THE COURT: Welcome back from lunch, ladies and
13 gentlemen. Please have a seat.

14 All right. Plaintiff, call your next witness.

15 MS. GLASSER: Thank you, Your Honor. USAA calls
16 Professor Thomas Conte.

17 THE COURT: All right. If you'll come forward,
18 Doctor Conte, and be sworn by our Courtroom Deputy.

19 (Whereupon, the oath was administered by the Clerk.)

20 THE COURT: Please have a seat on the witness stand,
21 sir.

22 THE WITNESS: Thank you.

23 THE COURT: Counsel, briefly approach the bench,
24 please.

25 (The following was had outside the hearing of the

1 jury.)

2 THE COURT: Were there not to be depositions before
3 Doctor Conte earlier?

4 MS. GLASSER: We agreed to switch the order.

5 THE COURT: I'm glad somebody told me.

6 MS. GLASSER: Sorry about that.

7 MS. GLASSER: All right. Let's go.

8 (The following was had in the presence and hearing
9 of the jury.)

10 MS. GLASSER: And actually, Your Honor, before we
11 formally begin as well, the parties have also conferred and,
12 with Your Honor's permission, we would like to turn off the
13 video in the gallery because there will be some snippets of
14 source code that are shown.

15 THE COURT: Throughout this examination or only for
16 a designated portion?

17 MS. GLASSER: They are in multiple portions
18 throughout the presentation, and so we believe it would be
19 disruptive to have people shuffling in and out. The majority
20 of folks out there are not permitted to see the source code.

21 THE COURT: Do you anticipate discussing any of it
22 orally in a way that the record would need to be sealed?

23 MS. GLASSER: No. And, in fact, we have conferred
24 as well with a third party to ensure there is no objection to
25 it being discussed orally.

1 THE COURT: So the only way it could be disclosed
2 would be visually.

3 MS. GLASSER: Correct.

4 THE COURT: All right. And I gather both sides are
5 in agreement with that approach?

6 MR. LANTIER: Yes, Your Honor.

7 THE COURT: All right. Then have we taken the steps
8 to implement that now?

9 MS. GLASSER: I believe that that has been done or
10 that it can be done fairly easily.

11 THE COURT: Well, I'll order, based on the parties'
12 agreement, that the monitors inside the bar in the jury box
13 remain operative and unaffected, but the three monitors that
14 face the gallery will be turned off during the examination of
15 Doctor Conte.

16 MS. GLASSER: Thank you very much, Your Honor.

17 THE COURT: All right. Let's proceed with direct
18 examination of the witness.

19 THOMAS CONTE, PhD, SWORN,
20 testified on direct examination by Ms. Glasser as follows:

21 Q. Good afternoon, Professor.

22 A. Good afternoon.

23 Q. Can you please introduce yourself to the jury?

24 A. Sure. My name is Tom Conte. I'm an associate dean and
25 professor of computer science and electrical and computer

1 engineering at Georgia Tech.

2 I live with my wife and our two children in Decatur,
3 Georgia, and my hobbies are woodworking and photography and
4 walking our four rescue dogs.

5 Q. What is your role in this case?

6 A. So I was asked to analyze certain USAA asserted patents
7 and their asserted claims and also analyze the PNC Mobile
8 Deposit System and then determine whether or not PNC infringes
9 those asserted claims.

10 Q. And have you prepared graphics to illustrate some of your
11 testimony today?

12 A. I have, and here they are.

13 Q. Let me put up the graphic for your education, please.

14 A. Sure.

15 Q. And, Professor Conte, can you briefly describe your
16 educational background?

17 A. Sure. I went to the University of Delaware where I
18 received my Bachelor's of Electrical Engineering in 1986 with
19 a focus on computing.

20 I then went to the University of Illinois for graduate
21 school where I got my Master's degree in '88 and then my
22 doctorate in '92.

23 Q. And can you provide us with an overview of your
24 professional background after you received your doctorate
25 degree?

1 A. Okay. So immediately after I got my Ph.D., I got a job
2 teaching at the University of South Carolina. That's where I
3 met my future wife. We got married, and then we moved to
4 Raleigh-Durham, North Carolina, where I taught at NC State
5 University until mid 2008. And then Georgia Tech recruited me
6 away, and that's where, as I said, I'm associate dean and
7 professor of CS and ECE at Georgia Tech.

8 Q. During those roughly 30 years of teaching at
9 universities, did you also obtain specific industry
10 experience?

11 A. I did. So, you know, that old adage that those who can't
12 do, teach, I don't believe in that and especially as an
13 engineer. So I've always worked in industry part-time and in
14 the summers. In fact, one attraction to going to the
15 University of South Carolina was that they had an NCR division
16 there that built bank servers. So a day a week, I worked
17 there, and then during the summers I worked there as an
18 engineer. We'll hear more about bank servers later today.

19 Then when I moved to Raleigh-Durham, I got a day a week
20 and a summer job working at IBM in their embedded processor
21 group.

22 And then around '99, a bunch of us had a bright idea and
23 we went off and did a start-up called BOPS. And BOPS built
24 mobile processors for video, image recognition, and things
25 like this.

1 And then I've also worked for some other companies on
2 mobile processors as well.

3 Q. When you were working at BOPS, what were the two types of
4 things that you did?

5 A. So I worked with intellectual property, inventions, and I
6 also developed a product.

7 Q. Now, are those two separate things, developing inventions
8 and developing products?

9 A. Yes, they are.

10 Q. Do you have experience with mobile technology and banking
11 specifically? Could you elaborate on that a little bit?

12 A. Yes. So as I said, at IBM, then at BOPS, and then in
13 later jobs that I had, I worked on mobile processors,
14 including some that go into phones even today.

15 I also worked on bank servers when I was at NCR, and I
16 believe even NCR software is at issue today as well.

17 Q. Now, could you tell us, have you received any significant
18 awards or recognitions?

19 A. Okay. You made me make up a slide on that. So I am the
20 past president of the IEEE Computer Society. That's the
21 largest society in IEEE. I was elected to that by my peers
22 and served in that role in 2015.

23 I'm also a fellow of the IEEE. That's a pretty select
24 group.

25 I invented 40 patents and am the author of over 100

1 papers in the fields of computer engineering, computer
2 science, and electrical engineering.

3 Q. Now, for the 40 issued U.S. patents, were any of your
4 inventions put into commercial products before the application
5 for the patent was filed?

6 A. Absolutely none.

7 Q. Were any of them ultimately put into commercial products?

8 A. Yes. Three of them were.

9 Q. And is there a difference between invention to create a
10 valid patent and ultimate commercialization?

11 A. Yes.

12 MR. LANTIER: Objection, Your Honor. At this point
13 I think we are straying into new opinion testimony.

14 MS. GLASSER: That was my last question on that
15 particular slide so I'm happy to move on.

16 THE COURT: Well, counsel's objected to your last
17 question whether it was your last question or your next
18 question.

19 What's the basis of your objection, Mr. Lantier?

20 MR. LANTIER: Your Honor, the basis is that that's
21 not disclosed in the expert report that was served in this
22 case.

23 THE COURT: What's your response to that, Ms.
24 Glasser?

25 MS. GLASSER: The fact that he's an inventor on the

1 patents and his industry work is disclosed in the report. And
2 there's no objection to this slide, either, by the other side.
3 It was predisclosed.

4 THE COURT: What specifically do you believe exceeds
5 the scope of the expert's report, counsel?

6 MR. LANTIER: Your Honor, he was testifying about
7 the -- in his experience, which was not in the report, but
8 whether there was commercialization of patented products at
9 the time the patent was applied for. It's not within the
10 scope of his opinion. It's not even subject matter of his
11 report.

12 THE COURT: I'm going to overrule the objection.
13 We're talking about his background and his qualifications to
14 be an expert in this case. He's not begun testifying about
15 substantive matters related to the patents-in-suit.

16 MR. LANTIER: Yes, Your Honor.

17 THE COURT: All right. Let's proceed.

18 Q. (BY MS. GLASSER) Now, in addition to over the last 30
19 years, you mentioned you've been teaching and you've also been
20 working for industry. Is that right?

21 A. That's correct.

22 Q. And during that time period, have you also been engaged
23 on a number of occasions to review patents for, for example,
24 litigation matters like this one?

25 A. I have, yes. I think my first engagement was 19 years

1 ago.

2 Q. And over those 19 years, do you sometimes analyze them
3 for the patentholder and sometimes analyze them for someone
4 who's been accused of infringement?

5 A. Yes. I've done both.

6 Q. Have you ever had an occasion where an innovator like
7 USAA in the past has both retained you and retained the law
8 firm that Mr. Sheasby and I work for?

9 A. Yes. In fact, USAA retained me in the Wells Fargo
10 matters.

11 Q. Are you being compensated for your time in this and any
12 other consulting matter that you get engaged on?

13 A. Yes. I'm being compensated at my ordinary and customary
14 rate of \$600 per actual hour worked.

15 Q. Is your compensation dependent in any way at all on the
16 opinions you give or the outcome of this case?

17 A. Absolutely not.

18 MS. GLASSER: Your Honor, I would offer Doctor Conte
19 as an expert in computer science and mobile device technology.

20 THE COURT: Is there objection?

21 MR. LANTIER: No objection, Your Honor.

22 THE COURT: Then without objection, the Court will
23 recognize this witness as an expert in those designated
24 fields.

25 Please continue, counsel.

1 Q. (BY MS. GLASSER) Doctor Conte, what analysis at a high
2 level did you perform in this case?

3 A. So at a high level, I analyzed claims of the patents
4 you've heard about, the '432, the '681, the 605, the '571.

5 I also analyzed PNC's mobile check deposit system, and
6 I'll go into that in depth.

7 And then I determined whether or not all of the asserted
8 claims are present in the PNC system.

9 Q. Now, how did you go about analyzing the PNC system? What
10 types of PNC materials did you have access to?

11 A. Well, I had access to PNC technical documents, PNC sworn
12 witness testimony, and PNC source code to the acts.

13 Q. So once you had all that information available to you,
14 the source code and the witness testimony and the documents,
15 how do you actually go about determining whether the PNC
16 accused products infringe?

17 A. So what I do is I look at the documents, I compare them
18 to the claim elements, and then for each and every element --
19 let me go back to that. For each and every
20 element -- actually here we go. For each and every element in
21 the claim, I look over to the right here, see if it's in the
22 system. If it is, I'll put a checkmark there meaning it's
23 present.

24 And then at the end of the day, if there's a checkmark in
25 all the boxes, then I can conclude they infringe.

1 Q. And is this analysis that you just described what's known
2 as literal infringement?

3 A. It is.

4 Q. Did you also perform a second type of infringement
5 analysis in this case called doctrine of equivalents
6 infringement?

7 A. I did. And that is where something is equivalent if it
8 performs substantially the same function in substantially the
9 same way to achieve substantially the same result.

10 Q. Okay. So before we get into the details of your
11 opinions, do you have a road map for us of the topics that
12 you're prepared to present on today?

13 A. I do and here it is. So first I'll talk about USAA's
14 asserted patents. Now, you've heard a lot about them so what
15 I'll do is just focus on some aspects that are relevant to my
16 analysis.

17 And then I'll go over how the PNC Mobile Deposit System
18 works.

19 And then I'll go through that element-by-element analysis
20 with those two pieces of information in hand.

21 Q. So turning to the first subject of the USAA patents, can
22 you just briefly remind us how are those patents grouped? I
23 think this is a slide we've seen before in the opening.

24 A. Yeah. There are two groups. There is the 2006
25 generation and the 2009 generation.

1 Q. Did you prepare slides highlighting some of the key
2 concepts in the 2006 patents that were important to your
3 understanding and analysis?

4 A. I did. So here's some of the specifications, and it
5 talks about what you've heard--that the advantage of the
6 embodiments of the invention is the ability to operate in
7 conjunction with electronics that today's consumers actually
8 own or can easily acquire, such as a general purpose computer.

9 Then it goes further and it says, general purpose
10 computer specifically excludes specialized equipment like a
11 bank or a business would buy to process checks.

12 Q. Now, I'm going to pause you there for a minute.

13 Were you here when it was mentioned during the jury
14 instructions that there would be constructions or definitions
15 from the Court for some of the claim terms?

16 A. Yes, I was.

17 Q. And is general purpose computer a term that has a special
18 definition from the Court for this case?

19 A. It does. So the definition is, a computer that is not
20 specialized for a particular purpose.

21 Q. What is an example of a general purpose computer that is
22 not specialized for a particular purpose?

23 A. Well, that would be like a tablet computer. It could be
24 like a notebook computer or could be like a smartphone.

25 Right? And any one of these cases, you can download multiple

1 apps to that computer and do a whole variety of things.

2 You know, in fact, you'd imagine, as a computer geek, I
3 have tons of computers at home, and my wife won't touch them.
4 She does everything with her smartphone, much to my chagrin.

5 Q. Now, in the USAA patents, do they describe ways in which
6 the general purpose computer can be configured?

7 A. Yes. They discuss that, and I'll read it, General
8 purpose computer element 111 may be in a desktop or laptop
9 configuration.

10 Q. Now, what does that exact phrase, laptop configuration,
11 what does that mean to a person like you who's skilled in the
12 art of computing?

13 A. A laptop configuration means that everything's contained
14 in one box so you don't have a bunch of things hanging off it.

15 Q. Can you dig into that a little bit more? Can you give us
16 an example of devices that are in what's called a laptop
17 configuration?

18 A. Sure. In fact, the three I just mentioned. So a tap
19 tablet computer, a notebook computer, or -- or a smartphone is
20 in a laptop configuration. Everything you need is in one box.

21 Q. And how long has that been the understanding of folks
22 like you skilled in the art of computing?

23 A. Oh, wow. Probably back to the mid '90s. No, no. Let me
24 say the mid '80s.

25 Q. Do the patents make reference to any particular special

1 types of mobile devices?

2 A. They do. And so here's a section where they talk about
3 various digital devices such as a PDA. Now, PDA, that term
4 means personal digital assistant. That's a handheld computer.
5 So, in fact, a smartphone today is a PDA. The only difference
6 today is it actually has a phone part with it.

7 Q. Now, there was some discussion earlier today about filing
8 dates of patents, and so I want to be very clear. All of
9 these statements from the specification that you're pointing
10 to, were these in the original 2006 patent application or were
11 they added later?

12 A. Oh, the specification cannot be edited. So, yes, these
13 were in the original application.

14 Q. In 2006?

15 A. In 2006.

16 Q. Now, you mentioned the term -- actually let me go to one
17 other topic from the specification.

18 Do the patents describe how this type of general purpose
19 computer in the invention should interact with the imaging
20 device like the camera?

21 A. Yeah, it does. It talks about the image capture device
22 112 may be communicatively -- I always screw that word up --
23 communicatively coupled to the computer 111.

24 Q. Okay. So what does communicatively coupled mean in the
25 context of, for example, an iPhone?

1 A. So if you were to take your iPhone and, let's say, smash
2 it with a hammer, I don't recommend it, but if you did that
3 and you pulled it apart, you'd see the processor is connected
4 with the camera with a set of wires. So it's communicatively
5 coupled to the processor.

6 Q. Okay. So let's turn then to your analysis of the PNC
7 Mobile Deposit System, starting with the most general question
8 which is, what does the PNC Mobile Deposit System include?

9 A. So the PNC Mobile Deposit System includes the app that
10 runs on the user's phone; it includes software that runs on
11 the PNC servers; and when you launch the app, it communicates
12 with that software on the server to form the system that
13 allows the user to do mobile deposit of checks.

14 Q. Just to break it down into pieces about which parts PNC
15 is performing, so that mobile device itself physically is
16 manufactured by someone else in a factory. Right?

17 A. Of course. Of course.

18 Q. And same with server equipment. Is that right?

19 A. That's right.

20 Q. So who takes those pieces of the system and assembles the
21 complete PNC Mobile Deposit System into one?

22 A. PNC does. In fact, part of the assembly is done by the
23 app itself when it reaches out and communicates with the
24 server and establishes this connection to make the system.

25 Q. Now, in terms of the PNC software you're talking about

1 that controls the system, are there some parts of that code
2 that PNC went out and purchased from a vendor?

3 A. Yes, of course.

4 Q. And then does PNC itself incorporate those and customize
5 them?

6 A. Yes. That's -- that's a standard practice.

7 Q. Okay. So we've been talking about the software. What
8 exactly is the PNC software made out of?

9 A. All right. So software is made out of source code. And
10 what that is is what I teach computer science students about.
11 And we're going to get a chance to look at some source code.
12 And when we do, I'll explain to you how it works.

13 So source code is really the list of instructions that
14 you have to make a computer program do what it does.

15 Q. And what is an algorithm?

16 A. An algorithm is a set of steps and -- that ultimately the
17 only other requirement for an algorithm is that it terminates.
18 So a set of steps that eventually you do and it ends.

19 Q. Now, what source code versions did you examine for the
20 PNC system?

21 A. Okay. So I looked at the PNC IOS release from April 2016
22 up to mid 2021, I looked at the PNC Android release from --
23 releases from September 2017 up to mid 2021, and I looked at
24 all the PNC mobile deposit server software produced.

25 Q. And did you have a team that assisted you in reviewing

1 all of that source code?

2 A. I did. There was a team of three programmers that went
3 out, and the way I did that was -- and this is PX 030. PNC
4 supplied this flowchart, and it's pretty big. We'll see
5 pieces of it later. And it describes how their whole system
6 works.

7 And so what I did was, when I wanted to see how a block
8 worked, I asked the programmers to go out and get that source
9 code to me, and then I looked at that to see how it operated.

10 Q. So that supplies all of the big picture high level, and
11 then you have to look at the source code or other documents to
12 understand some of the implementation details?

13 A. Absolutely.

14 Q. So from a technical perspective, once this system is
15 assembled together using the code, how does PNC actually
16 control the customer's mobile device?

17 A. So what PNC does is that the customer must download the
18 PNC mobile app if they want to make mobile deposits with PNC.
19 In fact, when you download it, there's this agreement that you
20 agree to, and it says, use of PNC's mobile deposit feature
21 requires that you use their mobile app. So you can't go in
22 the back room and program your own app--right?--to access
23 their servers. You have to use the PNC mobile app.

24 Q. Does PNC require everyone who banks with them to do
25 mobile deposit?

1 A. No, of course not.

2 Q. But if they do do mobile deposit, then are they bound by
3 particular terms?

4 A. They are. If they do do mobile deposit, they must do it
5 with the PNC app.

6 Q. Have you prepared for the Court and jury a walk-through
7 of the high level steps that occur once this application
8 software is installed and running on the customer device?

9 A. I have. So this is how it works. When you launch the
10 app, it asks you to authenticate with the username and
11 password or fingerprint or something like that. Then you
12 choose from a set of menu items, like, you know, pay bills,
13 whatever. Let's say you choose deposit checks.

14 Next what it does, it asks you to pick the deposit
15 account. Then you look at the check, you read the number off
16 the front, and you enter it. And then a screen pops up, and
17 it -- you see -- you use the camera to capture images of the
18 check. It will show you this ghost of the check. You're
19 supposed to fill the frame with that ghost check image. If
20 you don't, it will give you hints like move closer.

21 Q. And so when you say the ghost of a check, you're talking
22 about this rectangle that sort of shows up on the screen and
23 starts hovering over where the user is providing the check?

24 A. Yeah. They call it a ghost image. So we'll use that
25 term again later.

1 Q. Okay. And so then what happens? How does it actually
2 capture?

3 A. So once the image is good, it says success and it snaps a
4 picture of the image. And then it presents the image to you.
5 And what the user can do is look at that image. If that image
6 is good, then hit continue. If that image isn't good, then
7 you can retake the photo.

8 And, of course, PNC does this because they want to
9 increase the likelihood that they get good photos in the back
10 end.

11 Q. Could you explain that a little bit more? So why from a
12 technical perspective are the photos presented to the user
13 after they're taken?

14 A. So from a technical perspective, the quality of the image
15 is very important. So from a technical perspective, you
16 present the image to the user so that they can examine it.
17 And even though you took the picture, it might be that it is
18 fuzzy or something. And so, again, the user can choose to
19 retake that picture. And ultimately the probability of
20 success in PNC's applications overall across all deposits is
21 going to increase.

22 Q. Okay. And so then I think you showed us just visually on
23 the screen only the front of the -- sorry, the front of the
24 check. What happens after the front of the check?

25 A. I'm a step ahead of you. So here it says, capture back

1 of check, and the same process proceeds. They will snap the
2 picture, says success. And then it gives the user an
3 opportunity to review the back of the check. And, again, if
4 it's a bad image, retake it; a good image, continue.

5 And then what pops up is the screen that tells you when
6 the funds will be available and how much -- how -- sorry. You
7 can choose in PNC's app to pay \$2 and have the funds
8 immediately available. And it gives you the submit button.

9 And then when you mash that submit button, it pops up
10 this confirmation of deposit screen.

11 Q. So for your element-by-element analysis applying the
12 system to the patents, which patent did you analyze first?

13 A. Okay. So let's start with the '432 Patent, claim 1. And
14 let me explain what I've done here.

15 On the left is how the claim actually appears in the
16 patent in the back of the juror notebooks. And I've just
17 taken the text here for each element and put them in rows in
18 this table. And so I'm going to use this table to mark off
19 elements as I find them.

20 Q. Okay. Have you prepared a chart like that for the '432
21 Patent for us to walk through?

22 A. I have.

23 Q. What were the first elements that you analyzed?

24 A. So the first elements are element A, a system comprising.
25 And then element B, a customer's mobile device, including a

1 downloaded app, the downloaded app provided by a bank to
2 control check deposit by causing the customer's mobile device
3 to perform: and then C through J.

4 Q. Okay. So -- oh, did you apply any definitions from the
5 Court for this term?

6 A. I did. The Court gave us two definitions. The Court
7 defined mobile device to be a handheld computing device. The
8 Court defined check deposit to mean a transaction involving
9 provision of a check to a depository in a form sufficient to
10 allow money to be credited to an account.

11 Q. And did you analyze whether elements A and B are present
12 in the PNC product under the Court's definitions?

13 A. I did. So the PNC mobile app does run on a handheld
14 device, and it does provide a check image to their servers,
15 which ultimately results in the funds being credited to the
16 account.

17 This isn't the only evidence I looked at. I also looked
18 at the source code, for example.

19 Q. And actually just to clarify some terminology. So a
20 mobile phone is a type of handheld computing device. Is that
21 correct?

22 A. Yes.

23 Q. Is it the only type of handheld computing device that can
24 exist?

25 A. No. There's many other types of handheld computing

1 devices that can exist.

2 Q. And so what did you conclude ultimately regarding
3 elements A and B?

4 A. So these elements are present, so I'll put a checkmark
5 there.

6 And then the next element is "instructing the customer to
7 have a digital camera take a photo of a check." And so with
8 that, we saw this in the walk-through. It does instruct the
9 customer to take a photo of the front of the check and the
10 back of the check, and I also confirmed this functionality in
11 the software itself.

12 Q. And so what was your conclusion then regarding the
13 entirety of element C?

14 A. Well, for all that evidence, it's present. So let's put
15 a checkmark there.

16 Q. And what was the next element you reviewed?

17 A. That's "giving an instruction to assist the customer in
18 placing the digital camera at a proper distance away from the
19 check for taking the photo."

20 And here is our first source code. So this shows -- the
21 top shows this code that actually produces this ghost image.
22 And this is fairly easy to read because the programmers named
23 the routine, show ghost image.

24 Q. Okay. So just to be clear, the black-and-white small
25 font at the top, those are actually excerpts that you've put

1 on the slide from the actual real underlying source code. Is
2 that correct?

3 A. That's correct.

4 Q. Okay. And that code itself corresponds to what you
5 visually see on the app down on the bottom part of the slide?

6 A. That's right. This is the code that actually makes the
7 bottom happen. And you see if the horizontal fill is wrong or
8 the minimum padding is wrong, it's going to say things like
9 get closer. Right? You got to get closer. In fact, if
10 you're too close, it's going to say, you know, back up.

11 And so it does both these ghost image and these feedback
12 hint bubbles, is what PNC calls them. So for all those
13 reasons then, element D is present in the PNC Mobile Deposit
14 System, and I can put a checkmark there.

15 Q. Did you go on to analyze element E?

16 A. I did. And it is "presenting the photo of the check to
17 the customer after the photo is taken by the digital
18 camera." And we saw this. So after the photo is taken, it
19 does prevent -- present the photo of the check to the customer
20 and gives them the option to retake.

21 And, again, the reason here is to try to increase the
22 likelihood of getting a good image on the back end. And it
23 does the same thing for the back of the check.

24 Q. And --

25 A. I'm sorry.

1 Q. I apologize. I actually -- just for the record and for
2 the jury if they need the evidence, the source code we looked
3 at on the prior slide, was that PX 312 and PX 315?

4 A. Yes, it was.

5 Q. And then I think I may have interrupted you regarding
6 element E.

7 A. Okay. So that's the evidence, plus I confirmed that in
8 the source code. Therefore, element E is present. We can put
9 a checkmark there.

10 Now let's move on to element F. That's "using a wireless
11 network, transmitting a copy of the photo from the customer's
12 mobile device, and submitting the check for mobile check
13 deposit in the bank after presenting the photo of the check to
14 the customer."

15 Q. And that is a fairly lengthy element. If we could break
16 it up into pieces, what analysis did you do for the first part
17 of element F regarding the wireless network?

18 A. All right. So for the first part -- and, again, that's
19 providing -- that's transmitting a copy of the photo of the
20 check from the customer's mobile device.

21 Here I'm showing the source code for where that
22 transmission occurs, and you'll see here
23 remotedepositrequest.create, and I've highlighted something
24 here called carrier. That's your carrier like AT&T or Verizon
25 or something. So it says, use that carrier, and it's sending

1 the back image and the front image.

2 Q. And that's all from within Exhibit PX 353?

3 A. That's correct.

4 Q. Now, what about the second part of element F, submitting
5 the check?

6 A. Well, I'm not done yet. Let me show you a little more
7 about the first element just to be complete.

8 Here is an example of turning off of the network by going
9 to the airplane mode. And if you do that and you try to
10 proceed, it's going to say, a network error occurred, please
11 check your connection. So there's no way you can submit a
12 check, of course, if you can't communicate with the servers.

13 Q. So this is what actually happens on the mobile device
14 when that code you just showed is running. Is that right?

15 A. That's correct.

16 Q. Now, what about that second part of the element?

17 A. The second part is submitting the check for mobile check
18 deposit in the bank after presenting the photo of the check to
19 the customer.

20 And as you saw on the walk-through, the photos of the
21 check is presented first. And here's that submit button.
22 When the user mashes that submit button, in IOS, in that
23 version, it calls the software, routine submit deposit
24 complete. In Android, it calls the function -- actually the
25 method, confirm submit deposit complete.

1 Q. So I think function and method are new terms here. Are
2 those source code terminology and what do they mean?

3 A. Okay. They are source code terminology, and what they
4 mean is that this is the name of another set of instructions
5 that perform that function.

6 So in IOS if you, what we say is, invoke, if you invoke
7 submit deposit complete, it's going to go off and run those
8 instructions that do what happens after you press the submit
9 button.

10 In the Android version, it's called slightly differently.
11 They put a confirm in front, to confirm submit deposit
12 complete. And in the Android version, they call it a method.
13 Hey, programmers can't decide on anything. Right? They call
14 it a method, and that method then is the same thing. It's a
15 list of instructions that -- that do a specific operation.

16 Q. For purposes of determining whether element F is
17 satisfied, is there any material difference between the IOS
18 and Android versions?

19 A. No, there's no material difference.

20 Q. So taking all of that together, did you reach an opinion
21 regarding element F?

22 A. I did. That's present. So let's put a checkmark there.

23 And the next element is "a bank computer programmed to
24 update a balance of an account to reflect an amount of the
25 check submitted for mobile check deposit by the customer's

1 mobile device."

2 And so for this, we're going to go to this big chart.
3 And what I've done is I -- here's the chart on the left, and
4 that's PX 303 again. And I've blown up a section of this.
5 And that submit deposit, that's what happens when you mash the
6 submit button.

7 And what it does is it sends the account and the amount
8 in this IFA standard is how long you have to wait for all the
9 funds, it sends that down here to the bank computer. So
10 everything below this first blue line is done in the bank
11 computers, in the servers in the back end. And here the
12 computer processes the submitted deposit, and then it updates
13 the bank account balance.

14 So based on that evidence and also my analysis of the
15 source code, that's present. So let's put a checkmark there
16 as well.

17 Q. And which elements did you look at next?

18 A. Okay. So element H is an intro to INJ. Element H says,
19 "wherein the downloaded app causes the customer's mobile
20 device to perform additional steps including:" and then I and
21 J.

22 Now, I is confirming that the mobile check deposit can go
23 forward after optical character recognition is performed on
24 the check in the photo.

25 Q. And did you determine whether -- actually you know what?

1 Before we go there, you mentioned optical character
2 recognition, and there's another term, OCR, that I think came
3 up with some other witnesses. What is the relationship
4 between those two things?

5 A. They're one and the same. So that's a computer algorithm
6 that looks at an image and figures out what the characters are
7 in image.

8 Q. And OCR is just the abbreviation?

9 A. Yes, optical character recognition.

10 Q. Did you determine whether the downloaded app for PNC in
11 fact causes the deposit to go forward after OCR is performed?

12 A. Yes, it does. And I confirmed that in the software, but
13 here's a real good visual example of what happens if it can't
14 go forward.

15 So let's say the user enters an amount from the front of
16 the check that doesn't match what the OCR -- what the computer
17 reads from the front of the check. It's going to pop up this
18 error. It says, can't validate amount. And it gives the user
19 two options. One is either verify the amount you entered is
20 correct, or if the amount you entered is correct, retake the
21 photo because the photo somehow the OCR couldn't read it.

22 Q. And what about if the mobile device does not find any
23 error at that stage?

24 A. Right. So if it doesn't find any error at that stage,
25 then it goes forward and ultimately you get to that submit

1 step.

2 Q. Now, what was your conclusion then regarding elements H
3 and I together?

4 A. Those are present. Now we can move onto element J.

5 Q. And let me ask you about element J. So element J, I
6 think you already mentioned this, but element J is connected
7 up to element H. Is that right?

8 A. That's correct. This is also talking about wherein the
9 downloaded app causes the customer's mobile device to perform
10 additional steps. J is checking for errors before the
11 submitting step.

12 Q. And did you identify any code that runs on the mobile
13 device that checks for errors before the submitting step?

14 A. I did, and here's some of that code. So this is code
15 running on the mobile device, and you'll see here it's
16 checking error codes. And depending on what the error code
17 is, and I've highlighted some, validate amount or error image,
18 front not clear, depending on what that error code is, it's
19 going to do different things.

20 Q. And this is from PX 362. Is that right?

21 A. That's correct.

22 Q. Okay. So can you give some additional examples from this
23 code of error checks that are occurring with this code that
24 runs on the mobile device?

25 A. Sure. So there is a whole set of errors that can occur

1 when the image is not good, so too far away, too much light,
2 not enough rotation angle, bad viewing angle. In this case,
3 it asks the user to retake the photos.

4 Q. And why is the mobile device checking for those errors?
5 What does it do if it finds them?

6 A. Well, it needs to check for those errors so that it tells
7 the user there was an error and then give the user an option
8 to fix it.

9 Q. Does any processing occur on the server?

10 A. Yes, of course. The server does some of the checking.
11 For example, this last one--error, duplicate check. So the
12 server checks to see if the user is trying to pull a fast one
13 and deposit a check twice.

14 Q. And then what does the mobile device check?

15 A. Well, what it does is it checks the result from the
16 server, and depending on that, it then pops up this message
17 saying, hey, you can't do that.

18 Q. So if the mobile device finds an error using this code
19 we're seeing on the screen, what exactly does it do?

20 A. So if it finds an error using this code, what it does is
21 it will do some corrective action or inform the user. And
22 that's key. It informs the user based on what results in this
23 case the server determined.

24 Q. And the bottom of your slide says, all of this error
25 checking is before submit. Can you elaborate on that a little

1 bit?

2 A. Yes. Remember how we tied the submit button to source
3 code? It does that submit deposit complete or confirm submit
4 deposit complete depending on the two versions. Well, all of
5 this error checking that I presented is done in the source
6 code before you even get to that button.

7 So the reason I pointed that out is the claim requires
8 that checking for errors before the submitting step.

9 Q. Did you identify any other examples of the downloaded
10 application causing the customer's mobile device to check for
11 errors that occur before submission?

12 A. Yes. So here's an example. So accounts have, of course,
13 a deposit limit per day, and here's an example of trying to
14 deposit a check that's a hundred dollars over the limit. And
15 if someone attempts to deposit a check over that limit, it
16 pops up this message and says, exceeded your daily deposit
17 limit.

18 Q. And how -- before the software performs that check, what
19 does the user do? Do they have to enter some information
20 relating to the check?

21 A. Yes. They enter the amount from the image of the check.
22 And all of this, again, happens before you can get to that
23 submit button.

24 Q. Now, do you have an understanding of whether PNC has ever
25 disputed this element?

1 A. Yes. My understanding is that PNC has said all their
2 errors are completely checked on the server, and the phone
3 doesn't do any work.

4 Q. And to be clear, do you agree with that?

5 A. No, I don't. But even if they are -- if that were true,
6 I went forward and did a doctrine of equivalents analysis.

7 Q. And so under the doctrine of equivalents analysis, even
8 though you disagree based on all of that code and other
9 evidence that you just showed, did you do a completely
10 separate analysis of whether claim 1 would still be met under
11 the doctrine of equivalents even under PNC's position?

12 A. Even under PNC's position, yes. And so even under PNC's
13 position, it does substantially the same function. Okay? It
14 checks for errors before the deposit is submitted. It does it
15 in substantially the same way. It's checking for errors with
16 the deposit, such as the deposit amount, the missing MICR
17 line, et cetera, and it achieves substantially the same result
18 that's identifying the error and informing the customer of the
19 error and providing an opportunity to correct the error before
20 the deposit is submitted.

21 Q. So taking all of that together, what is your ultimate
22 opinion as to claim 1 of the '432 Patent and PNC's conduct?

23 A. Yes. So in this case I've shown you, for all the
24 evidence I've shown you, that each and every element of claim
25 1 of the '432 is present. So I concluded that claim 1 of the

1 '432 is infringed by the PNC Mobile Deposit System.

2 Q. Did you go on then to analyze claim 12 of the '681
3 Patent?

4 A. I did. And here is claim 12 of the '681. It's long, but
5 here's the good news. A lot of the evidence that we've
6 already seen is also evidence of a lot of the elements in this
7 claim. So we don't have to redo all of the tedious analysis
8 because we've seen a lot of that. Not all of it but a lot.

9 Q. Well, let's start with element A. What additional
10 details does this element require that you haven't already
11 shown to the jury?

12 A. Sure. Element A is a system for allowing a customer to
13 deposit a check using the customer's own mobile device with a
14 digital camera. That's the same as we've heard, but it goes
15 on a system configured to ask the customer to log in using a
16 username and password, the system including: and then steps B
17 through K.

18 And, indeed, we saw this in the walk-through. It does
19 ask the customer to log in using a username and password, and
20 here's that screen that did that. So that's present in PNC's
21 system.

22 Q. Okay. So now what is going on here on this slide with
23 the screen highlighting for elements B, C, and D?

24 A. Okay. So B, C, and D require much of the same evidence
25 that we've already seen. In fact, we saw that evidence in the

1 claim we just analyzed. And so the only new extra detail here
2 is camera software that works with the digital camera. And we
3 saw that. It has software that works with the digital camera.
4 In fact, it opens up the camera to take images of the check.

5 So all of this is present, and I can put checkmarks
6 there.

7 Q. And just for the record, the element where you had
8 previously presented that evidence was element B of the '432.
9 Correct?

10 A. Oh, yes. I'm sorry. Yes, element B of the '432 claim.
11 And the three elements of the '681 claim began with the
12 customer's mobile device including and ended with the element
13 a downloaded app associated with a bank, et cetera.

14 Q. So for the next element, element E, how does that relate
15 to what we saw for the '432 Patent?

16 A. Same evidence. Here it adds a little extra detail. Here
17 the detail is the photos of the front and back sides of the
18 check.

19 Q. So does the PNC system, in fact, capture photos both
20 front and back?

21 A. It does. And we saw that in the walk-through. And,
22 again, I confirmed that in the code.

23 Q. And so what did you conclude regarding element E as a
24 whole?

25 A. Okay. So that element is present. We can put a

1 checkmark and move on to element F. Element F begins with
2 displaying a graphical illustration. And this requires the
3 same evidence as element D of the '432, claim 1.

4 Q. And --

5 A. Okay. I'm sorry.

6 Q. Go on. I was just going to ask you about the underlying
7 language, graphical illustration.

8 A. Okay. So what's a graphical illustration? Well, that's
9 what we saw. There's graphical illustrations in what it
10 presents. In fact, the evidence that I used for that element
11 in the '432, claim 1, already showed this.

12 There is a ghost image, and there is hint bubbles. All
13 of these are graphical illustrations to assist the customer in
14 having the digital camera take photos of the check.

15 So all of that is present, and I can put a checkmark
16 there.

17 Q. Okay. So let's turn to element G. And before you
18 present your analysis on that, how does element G relate to
19 element E that you just described?

20 A. Right. So element G is calling out something from
21 element E. What it's calling out is presenting the photos of
22 the check. Element E is talking about having the digital
23 camera take photos of the front and back sides of the check.
24 So photos of the check are photos of the front and back sides.

25 Q. And does the PNC-accused product present front and back

1 photos after they are taken?

2 A. It does. In fact, here they are.

3 MR. LANTIER: I object, Your Honor.

4 THE COURT: What's your objection?

5 MR. LANTIER: The only discussion of this that's
6 been disclosed is in paragraphs 408 to 412 in the expert
7 report, and I don't believe that that question and answer that
8 is about to be given are contained there.

9 MS. GLASSER: I disagree. And, again, the slides
10 were sent to PNC counsel last night. They indicated they had
11 no objection to them.

12 MR. LANTIER: I don't have an objection to the
13 slide, Your Honor. It's the testimony that's coming up.

14 THE COURT: Well, obviously I don't have this expert
15 witness' report committed to memory. I'll be glad to take
16 this up outside the jury's presence, but I'll have to do it in
17 that fashion.

18 Ladies and gentlemen of the jury, I'm going to need to
19 resolve this without your presence in the courtroom. I'm
20 going to ask you to retire to the jury room briefly. I hope
21 this won't take very long.

22 You can simply close and leave your notebooks in your
23 chairs, and we'll have you back in here to continue as soon as
24 possible.

25 The jury should retire to the jury room at this time.

1 (Whereupon, the jury left the courtroom.)

2 THE COURT: All right. Be seated, please.

3 Mr. Lantier, I need you to tell me as explicitly as you
4 can how you believe the last question put forward by opposing
5 counsel calls for an answer that exceeds the scope and content
6 of the expert's report.

7 MR. LANTIER: Yes, Your Honor. The concern here is
8 that the -- the opinion disclosed in the expert report was
9 that the PNC mobile app discloses a photo and then it
10 discloses another photo after showing the first photo to the
11 user who's using the iPhone.

12 The whole opinion was given in the context of the '432
13 Patent, paragraph -- I think it's C, or claim element C. As I
14 said, it's at paragraphs 408 to 412. I'm sorry. It's claim
15 element is 1A3 where the substantive opinion was given in the
16 context of the '432 Patent.

17 THE COURT: What paragraph number of Doctor Conte's
18 report are you talking about?

19 MR. LANTIER: 408 through 412, Your Honor.

20 THE COURT: Well, it's a 338-page report. Let me
21 get there.

22 MR. LANTIER: Yes, Your Honor. It's on page 206,
23 and I apologize for moving too quickly.

24 THE COURT: Paragraph 400 and what?

25 MR. LANTIER: 408, four zero eight, Your Honor.

1 THE COURT: All right. All right. I have that
2 before me. Now, tell me how opposing counsel's question asked
3 the witness to go beyond the scope of this particular portion
4 of the report.

5 MR. LANTIER: So, Your Honor, we're now talking
6 about the '681 Patent, and the opinion for the relevant
7 element of the '681 Patent is found at page 253 to paragraph
8 566 of the report.

9 THE COURT: What page of the report is that on?

10 MR. LANTIER: 253. It's paragraph 566.

11 THE COURT: Paragraph 566 appears to be on page 262.

12 MR. LANTIER: Your Honor, you may be looking at PDF
13 pages. I was reading the numbered page.

14 THE COURT: That's probably the difference. It's
15 paragraph 566?

16 MR. LANTIER: Yes, sir.

17 THE COURT: Okay. All right. I have that in front
18 of me.

19 MR. LANTIER: So Your Honor can see that that's
20 merely a cross-reference back to the paragraphs that we had
21 previously looked at, the 408 to 412.

22 But the question that was asked of the witness and that
23 the witness started to answer was, does PNC's app present the
24 photos of the check to the customer. And there is no opinion
25 in the report that that occurs.

1 The opinion is that the photo is taken and the photo of
2 the check is presented to the customer for review, which is
3 accurate to what PNC's mobile app does.

4 THE COURT: All right. Ms. Glasser, what's your
5 response on behalf of Plaintiff?

6 MS. GLASSER: So the first major thing that was
7 omitted by opposing counsel was the actual heading and
8 statement.

9 So Doctor Conte's report states, paragraph 566,
10 Presenting the photos of the check to the customer after the
11 photos are taken, it is my opinion that this element is
12 infringed. And then he goes on. So he's expressly stating
13 that this element with photos, plural, is present.

14 And then as counsel partially correctly noted, it
15 references back to the '432 Patent. The '432 Patent section,
16 in turn, incorporates by reference the overview of the product
17 from the beginning of the patent. And so if you go to, for
18 example, page -- I guess it's easiest with paragraph numbers.

19 So paragraph numbers starting with 133, it's showing
20 exactly what he is talking about, capturing the front and the
21 back of the check, and then presenting the front and the back
22 of the check. He actually walks through in his report for the
23 '432 Patent. Even though he doesn't have to do the front and
24 the back, he does do that full analysis for the '432 because
25 it applies to all three of the claims.

1 What counsel is doing here is he's actually trying to
2 argue Doctor Bovik's opinion. So Doctor Bovik has this
3 opinion that, to him, unless you present the checks at the
4 same time, it doesn't count. But that's not Doctor Conte's
5 opinion and that's not what the report says.

6 THE COURT: All right. Anything further?

7 MS. GLASSER: Not unless Your Honor has questions.
8 Your Honor, I think the report is pretty explicit.

9 THE COURT: All right. Based on your arguments and
10 the particular provisions of the report that have been
11 referenced to the Court, I'm going to overrule the objection.
12 And I'll charge this time to the Defendant.

13 Let's bring the jury back in, please.

14 (Whereupon, the jury entered the courtroom.)

15 THE COURT: Thank you, ladies and gentlemen. Please
16 be seated.

17 I've overruled the objection that was made just before
18 you left the courtroom, and I'll direct Plaintiff's counsel to
19 continue with her direct examination of the witness at this
20 time.

21 Q. (BY MS. GLASSER) Doctor Conte, do you have the question
22 in mind or would it be helpful to read it from the transcript?

23 A. If you could read it back, it would be good.

24 Q. Does the PNC-accused product present front and back
25 photos after they are taken?

1 A. Yes, it does. And so we saw that through the
2 walk-through, but also here's the source code, and this is
3 where it prevents -- presents the front of the check, and you
4 see I've highlighted front of the check, and here is where it
5 presents the back of the check.

6 Q. And now so to be clear about your graphic, in the PNC
7 system, are those front and back photos presented
8 simultaneously at exactly the same time or are the photos each
9 presented individually just after they're taken?

10 A. They're presented individually just after they're taken.

11 Q. Do you have an understanding of whether PNC has ever
12 disputed this element?

13 A. Yes. PNC has said that you can't present the first photo
14 until you've taken images of both the front and back. But
15 that just isn't the case. I mean, if you look here at photos
16 of the check, that's talking about the front and the back
17 sides of the check like I showed you. And, sure enough, the
18 PNC system presents photos of the front and the back sides of
19 the check after they're taken. That's what the language says.

20 So it's literally infringed but also under the doctrine
21 of equivalents.

22 Q. So taking all of that together, what is your conclusion
23 regarding element G?

24 A. My conclusion is that's present, and I put a checkmark
25 there.

1 Q. And what is the next element you analyzed?

2 A. So that's element H that begins with, confirming that the
3 check deposit can go forward. And this requires the same
4 evidence that we've seen in elements H and I of '432, claim 1.
5 There is a little extra detail which is determining an amount
6 of the check and reading that magnetic ink character
7 recognition, or MICR line.

8 Q. And actually I apologize. In the back and forth, I
9 neglected to put in the exhibit number for that previous slide
10 on the front and back photos. Was that PX 317?

11 A. It was.

12 Q. Thank you for that.

13 Okay. So on element H, now in addition to the elements
14 you just showed, did you identify PNC source code specific to
15 that extra specificity that's in claim 12?

16 A. I did. And so here is the PNC source code where it
17 actually does OCR--you see code line method, OCR--and it
18 calculates the recognized amount, and also determines whether
19 or not the MICR, those funny characters at the bottom of the
20 check, is present. If they're not present, it will pop up the
21 screen over here saying that it can't find them.

22 Q. And that time, it's from PX 361?

23 A. That's correct.

24 Q. And so taking into consideration the source code and the
25 other evidence you reviewed, what did you conclude regarding

1 element H?

2 A. That's present, so I can put a checkmark there.

3 And now I move on to element I and J. I is using a
4 wireless network transmitting a copy of the photos over a
5 public communications network, and it goes on. And J is a
6 computer associated with a bank, programmed to update a
7 balance of an account to reflect the check submitted for
8 mobile check deposit by the customer's mobile device.

9 If it sounds familiar, we've seen the evidence for these
10 as well. And that evidence was in '432, claim 1, elements F
11 and G. The only extra piece here is over a public
12 communications network, as opposed to a wireless network.

13 THE COURT: Doctor Conte, slow down just a little
14 bit, please --

15 THE WITNESS: My apologies, Your Honor.

16 THE COURT: -- especially when you are reading. It
17 gets awfully fast. Go ahead.

18 THE WITNESS: I will try.

19 Where was I? Oh, so a public communications network.
20 Well, your phone uses a public communications network. It
21 uses a cellular network, and it can also use public WiFi to
22 access the internet.

23 So that's all present, and we can put checkmarks there.

24 Q. (BY MS. GLASSER) Okay. And then what about the very
25 last element of claim 12? What are we looking at there?

1 A. Okay. That is the "system configured to generate a log
2 file for the mobile check deposit, the log file including an
3 image of the check submitted for mobile check deposit."

4 Q. And did you determine whether such a log file is present
5 in the PNC system?

6 A. It is, indeed. The log file here is called the NCR
7 passport capture database, and here is the section of code
8 And this is, before you ask me, PX 361. And it shows
9 inserting the front binary image and the rear binary image
10 into this log file.

11 Q. What was your conclusion regarding the entirety of
12 element K?

13 A. That's present, so I can put a checkmark there.

14 Q. I'd like you to ask you to turn to claim 30 of the same
15 patent.

16 A. Okay. Before I go on, let me just state that I put a
17 checkmark in each and every element. So in my opinion the
18 '681 Patent, claim 12, is infringed by the PNC Mobile Deposit
19 System for all the reasons that I presented.

20 Q. Thank you, Doctor Conte.

21 So did you then go on, though, to analyze claim 30? Do
22 we have a slide to put up for that?

23 A. I did. Here's claim 30.

24 Q. Now, there's a lot in claim 30 that's similar to claim
25 12. Is that right?

1 A. Yes. Quite a bit.

2 Q. Is there something different, though, about the format
3 and structure of the claim?

4 A. Yes. So let's talk about that. It talks about up here
5 in element A, a non-transitory computer readable medium
6 storing an app that, when downloaded and run by a customer's
7 mobile device, causes the customer's mobile device to perform,
8 and then elements B through H.

9 Q. Okay. So previously we looked at claims that referred to
10 a system that included, for example, a mobile device or a bank
11 computer or things like that. Does this particular claim
12 require the physical mobile device or the physical server?

13 A. It doesn't. It's talking here about a non-transitory
14 computer readable medium.

15 Q. And what does that term mean in computer science?

16 A. So a non-transitory computer readable medium, sometimes
17 we call that non-volatile memory, are things such as the flash
18 storage that's in a smartphone that stores the apps in a
19 smartphone, or a disk drive that's in PNC's development
20 computers, for example.

21 Q. And is the PNC application, that software, is it in fact
22 stored in non-transitory computer readable media?

23 A. It is. It is stored in non-transitory computer readable
24 media on the user's smartphone. It is stored in
25 non-transitory computer readable media in the disk drives at

1 PNC's offices.

2 Q. So just to make sure we're clear, is -- PNC is performing
3 this claim in at least two separate places, first on its own
4 servers, and then also separately when the code is running on
5 the customer's phone? Is that right?

6 A. That's right because it's in both places.

7 Q. Okay. With that background, can you explain the second
8 part of element A, the when-downloaded-and-run piece of it
9 before we go on to the next element?

10 A. Oh, I'm sorry. So when downloaded and run by the
11 consumer's mobile device causes the consumer's -- sorry. I
12 keep on saying consumer. Let me correct this. When
13 downloaded and run by the customer's mobile device causes the
14 customer's mobile device to perform.

15 So, yes, we've seen that. The app, when downloaded by
16 the customer's mobile device, causes the customer's mobile
17 device to perform a series of steps. And I will show you that
18 each and every one of those steps listed in claim 30 is
19 performed by the PNC mobile app when it's downloaded to the
20 customer's mobile device.

21 Q. So turning to those next elements, did you address all of
22 the evidence that satisfies some of those elements already?

23 A. I did. So all the way from the element that begins with
24 instructing a customer to have a digital camera take photos of
25 the front and back sides of the check, down to element F that

1 begins with, confirming that the mobile check deposit can go
2 forward, these all require the same evidence that we've seen
3 in the '681 Patent, claim 12. So there, those are present.

4 Q. So turning to elements G and H then, are there any parts
5 of those elements that you did not address previously?

6 A. Yes. So most of this was addressed in element I,
7 including G, checking for errors, and H that begins with,
8 using a wireless network, transmitting a copy of the photos
9 over a public communications network.

10 But it adds, "submitting the check for mobile check
11 deposit after the customer is authenticated, the photos of the
12 check are presented to the customer, and the customer's mobile
13 device checks for errors."

14 Q. And can you walk us through whether you determined that
15 PNC's system performs all of those additional pieces of the
16 claim?

17 A. Yes. So let's break it down. It talks about the
18 customer's authenticated and, yes, the customer is
19 authenticated by the app.

20 It talks about the photos of the check are presented to
21 the customer. And, yes, we saw both the code and the app
22 screenshots where it presents the photos of the check to the
23 customer.

24 It talks about checking for errors. And we talked about
25 that in depth, and it does that both literally and under the

1 doctrine of equivalents.

2 And it also then does all of those things before
3 submitting the check for mobile deposit. And so let me be a
4 little more precise. Submitting the check for mobile deposit
5 happens after all of those things. And so that is the
6 submitting screen that we've seen.

7 Q. So taking all the pieces together, what is your opinion
8 regarding claim 30?

9 A. Claim 30, all of the elements are present in the PNC
10 Mobile Deposit System for all the reasons that I presented.
11 Therefore, it's my opinion that claim 30 of the '681 Patent is
12 infringed by the PNC Mobile Deposit System.

13 Q. Now, can we turn next to your analysis of the '605
14 Patent?

15 A. Sure. I'd be happy to. This is claim 12 of the '605,
16 elements A through N.

17 Q. And now that we have been through the other two patents
18 in this 2006 group, are you able to apply your prior evidence
19 and analysis to almost all of these elements?

20 A. I am, and that's in fact why I did this long claim last,
21 because we've seen the evidence for almost all of the
22 elements, everything from the beginning, "a system for
23 allowing a customer to deposit a check," and then it continues
24 all the way down to the element, "confirming that a mobile
25 check deposit can go forward after performing an optical

1 character recognition on the check, the optical character
2 recognition determining the amount of the check and reading
3 the MICR line."

4 And we've also seen the evidence for element N,
5 "generating a log file for the mobile check deposit, the log
6 file including an image of the check submitted for mobile
7 check deposit."

8 So we've seen all of that, and I can mark all of that
9 off.

10 Q. And when you say we've seen all of that, in particular
11 all those match to the evidence that you just presented for
12 '681 Patent, claim 12. Is that correct?

13 A. That is correct. We've seen all of that evidence when I
14 went over that for the '681 Patent, claim 12.

15 Q. Now, what about element M? Did you analyze element M?

16 A. I did. So element N -- pardon me, M is initiating the
17 mobile check deposit after performing the confirming step.
18 And, yep, it does that.

19 So here is that big walk-through again, this giant
20 walk-through, and I've highlighted some pieces of it. And so
21 here is where the confirmation step happens. And remember we
22 talked about how it sends the account and amount down to the
23 servers, and then here is what the server does. It does
24 everything, including depositing or initiating mobile check
25 deposit at the bank. And that's what this generate X937

1 posting file does. That's what the regulations require.

2 And that is PX 303 again.

3 Q. And so taking those pieces together, what is your
4 ultimate opinion regarding infringement of claim 12 of the
5 '605 Patent?

6 A. So in my opinion, for all the evidence we've seen, each
7 and every element is present. So the '605 Patent, claim 12,
8 is infringed.

9 Q. Now, are all the claims you analyzed so far what is known
10 as independent claims?

11 A. Yes, they are. Those are independent claims.

12 Q. And what is a dependent claim?

13 A. A dependent claim is, as I believe the Judge explained
14 yesterday, it's a claim that adds one or more elements to
15 another claim.

16 Q. And did you analyze any of the dependent claims for the
17 2006 patents?

18 A. I did. So these are the dependent claims that I
19 analyzed, and instead of reading them here, let me walk
20 through them.

21 Q. Let's turn to your first slide. What are we looking at
22 here?

23 A. So this is the '432 Patent, claim 3; the '681 Patent,
24 claim 13; and the '605 patent, claim 13. And these all add
25 substantially the same element, includes determining an amount

1 of the check and comparing the determined amount of the check,
2 or determining -- let me read that again. I'm sorry.
3 "Includes determining an amount of the check and comparing the
4 determined amount to an amount indicated by the
5 customer." And it does do that. It uses OCR to do that.
6 That's what the element calls out, optical character
7 recognition.

8 And this is that example I presented earlier. We've
9 already seen it does this, but I just wanted to indicate this
10 is an example where it says they don't meet. And it's
11 important. It gives two options. It says, they don't meet,
12 please verify the amount you entered is correct, or it could
13 be the OCR messed up so please retake the photo.

14 So all of those are present. Let's put checkmarks there.

15 Q. Which claims did you look at next?

16 A. Okay. '432 Patent, claim 5; '681 Patent, claim 22; and
17 '605 Patent, claim 22. And these all substantively -- let me
18 say that differently. These all add substantially the same
19 element, which is confirming step is performed after duplicate
20 detection is performed.

21 Q. What is duplicate detection briefly?

22 A. Duplicate detection is that someone's trying to deposit
23 the same check that has been deposited before, and we
24 discussed this prior. And it does indeed do this, and it will
25 pop up a message if you try to do that and say, hey, the

1 check's already been deposited for mobile deposit.

2 So those are all present.

3 Q. Which claims did you look at next?

4 A. That's '432 patent, claim 21; and '681 Patent, claim 26.

5 And those both add, "perform an additional step of assisting
6 the customer with lighting for taking the photo." And we saw
7 this in the error checks, but also it does this. Here is the
8 app doing it. It will instruct the customer that the lighting
9 isn't sufficient here. It says, use dark background.

10 Q. What was your conclusion regarding those elements?

11 A. Okay. Those are present. Let's put checkmarks there.

12 Q. And this slide is simply summary of everything you just
13 walked through regarding all of those claims. Is that right?

14 A. That's right. This lists all of the claims that I called
15 out and showed evidence for and already spoke of.

16 Q. Let's turn then to the 2009 patent, which is the one
17 we've been referring to as the '571. Did you analyze PNC's
18 infringement of that patent as well?

19 A. I did. So the '571 Patent is about auto-capture. So
20 here is the problem. The human eye really can't reliably
21 assess how good an image is for check deposit. So what USAA
22 invented was a solution where the processor assesses the image
23 quality criteria, the processor supplies corrective feedback,
24 and then the processor automatically captures the image when
25 the criteria are satisfied.

1 Q. So this is another way to help increase image quality in
2 addition to the things you mentioned earlier, like the guides
3 on the screen and the presentation and the other steps?

4 A. That's correct. This adds -- in addition to all the
5 corrective feedback and the guides, it adds this once you pass
6 a criteria, automatically capture an image.

7 Q. Have you prepared slides highlighting some of the key
8 concepts in the '571 patent specification?

9 A. I have. So here is the specification, and it talks about
10 the mobile device may include a video-enabled phone. It goes
11 further and it talks about, a frame of the video may be
12 obtained and monitored with respect to monitoring criteria.

13 Q. Does the patent give specific details about what the
14 monitoring criteria can be?

15 A. Yes. The patent gives a long list of monitoring
16 criteria, light contrast on the image, light brightness of the
17 image, positioning of the image, dimensions, tolerances,
18 character spacing, skewing, warping, corner detection, and
19 MICR line detection, and also using histograms.

20 Q. What is a histogram?

21 A. A histogram is a plot of -- for example, let's say you're
22 looking at a black-and-white photo. It will plot how many are
23 all black, how many are somewhat gray, how many are somewhat
24 less gray, how many are even less gray, all the way up to
25 white.

1 Q. And are there specific examples of histograms described
2 in the 2009 specification?

3 A. There are.

4 Q. Did you see testimony about PNC's use of these specific
5 monitoring criteria that are listed out in the '571 Patent?

6 A. I did. This is Mr. Alexander Goodstein. He is PNC's
7 corporate representative. He was read that passage from the
8 specification, and he was asked, those are the criteria that
9 PNC's mobile auto-capture system was using to evaluate check
10 quality. Correct?

11 And he said, I believe it was using some of these
12 details, yes.

13 Q. Do you agree with Mr. Goodstein?

14 A. I not only agree with him, I found that in fact the PNC
15 software was using each and every one of those criterias
16 called out in the specification.

17 Q. Now, did you then go on to walk through every word of the
18 claims of the '571 patent like you did for the prior three?

19 A. I did.

20 Q. And have you prepared a graphic to walk us through that?

21 A. I did. So here is claim 1, and again I put it in a table
22 form. And the first element is a non-transitory
23 computer-readable medium comprising computer-readable
24 instructions for depositing a check that, when executed by a
25 processor, causes the processor to: and then elements B

1 through D.

2 Q. So this is similar to the '681, claim 30, in the sense
3 that it's satisfied just by the software itself on some form
4 of storage media. Is that right?

5 A. That's correct. This says that same form that we saw
6 before about a non-transitory computer-readable medium storing
7 an app.

8 Q. Is there a definition from the Court that applies to any
9 part of element A?

10 A. There is. The Court gave us the definition of depositing
11 a check as, "providing a check to a depository in a form
12 sufficient to allow money to be credited to an account."

13 Q. And did you analyze whether element A is satisfied under
14 the Court's definition?

15 A. Yes, it is. That's, indeed, what happens. It does
16 provide a check to a depository in a form sufficient to allow
17 money to be credited to an account.

18 Q. What element did you look at next?

19 A. Next I looked at element B. That was "monitor an image
20 of the check in a field of view of a camera of a mobile device
21 with respect to a monitoring criterion using an image
22 monitoring and capture module of the mobile device."

23 Q. Okay. Are there some definitions from the Court that you
24 applied here as well?

25 A. There are. So, for example, the Court gave us a

1 definition of mobile device, and that is "computing device
2 capable of being easily moved and that is controlled by a
3 mobile operating system."

4 And indeed smartphones are easily moved and they're
5 controlled by mobile operating systems such as IOS for -- for
6 iPhones or Android -- Google Android for Android phones.

7 And the Court also gave us the definition, image
8 monitoring and capture module, which is function, image
9 monitoring and capture, corresponding structure. Image
10 monitoring and capture module 456 as set forth in the
11 specification; and equivalents thereof.

12 Q. Okay. So let's break that down. 456 is the number used
13 in the specification to refer to the image monitoring and
14 capture module. Is that correct?

15 A. That's correct. And this is the place in the
16 specification where it refers to it. And so -- go on. I'm
17 sorry.

18 Q. No, I was just going to ask you, so can you walk us
19 through what does the specification tell us about the image
20 monitoring and capture module?

21 A. Sure. So it talks about an image monitoring and capture
22 module 456. So let's put a box there, 456.

23 Q. Let me just pause you for a minute, partly because I
24 think you and I both are talking a bit fast even though the
25 court reporter is really, really good, but also to clarify.

1 So the image we're looking at on the left is directly
2 from the patent specification. Right?

3 A. That's correct. This is from the '571 Patent
4 specification, column 12, 65 through 13 --

5 Q. And then what we're seeing on the right is you've created
6 a graphic to illustrate that. Is that right?

7 A. That's correct. So I'm going to create this graphic
8 here. And I promise I'll talk slower. I've rarely been
9 accused of talking too fast.

10 THE COURT: Make sure that you both finish before
11 the other one starts. You've talked over each other a little
12 bit as well.

13 MS. GLASSER: Yes, Your Honor. Thank you.

14 THE COURT: All right. Let's proceed.

15 THE WITNESS: My apologies.

16 All right. So we have the image monitoring and capture
17 module 456. And it says, may include the camera 207. So
18 there's a camera. And it says, contained within a mobile
19 device 106. So let's put that in a mobile device. And it
20 says that also it's following a software call, so it has
21 software. Let's put the software there.

22 Q. (BY MS. GLASSER) And does the specification explain
23 whether that camera can be a video camera?

24 A. It does. The specification talks about that the device
25 may comprise a video source such as a video camera, and it

1 goes further and says, a frame of the video may be obtained
2 and monitored with respect to the monitoring criteria.

3 Q. So does the PNC-accused system, in fact, include an image
4 monitoring and capture module?

5 A. Well, yes, sure. I mean, it has a camera, it has PNC
6 implemented software, and that software controls the camera
7 and causes it to obtain and monitor video frames based on
8 monitoring criteria.

9 Q. Can you give us specific examples from the PNC
10 implemented software that controls the camera to monitor video
11 frames -- video frames? Excuse me.

12 A. Sure. Here's an example, and this is code that works
13 with the camera to monitor video frames. This is running on
14 the mobile device. And this shows it checking, for example,
15 you see science brightness, it's checking the brightness
16 that's coming from the frame and comparing it to a brightness
17 minimum. It does that here for skew angle at max, and it does
18 that here for a rotation angle as well.

19 Q. And that's from PX 384?

20 A. It is.

21 Q. Now, within this term, we see again -- within this
22 element, we see again this term monitoring criterion. Does
23 the Court provide us a definition for that?

24 A. The Court does. The Court defines that as one or more
25 features of a check that when -- let me start again.

1 One or more features of a check that provide information
2 about the suitability of the image to represent the check.

3 Q. And just to remind us briefly again, does the patent give
4 some examples of features of a check image that provide
5 information about the suitability?

6 A. It does. It gives this long list and, again, each and
7 every one of those items in that list I found in PNC's Mobile
8 Deposit System.

9 Q. So applying the Court's definition, can you show us some
10 specific examples of what you actually see on the mobile
11 device screen when the monitoring criteria are being assessed
12 in the PNC system?

13 A. Yes. You'll see, for example, this -- if the
14 lightness/brightness contrast is not acceptable, it will say
15 use dark background. Positioning, it will say move closer or
16 too close. And skewing, it might say center the check.

17 Q. So -- and you showed the source code for that a moment
18 earlier. Right?

19 A. I did. That's the same.

20 Q. Does PNC have any visibility into the part of the PNC
21 code that came from the vendor?

22 A. Yes, they do.

23 Q. Does PNC itself configure that MiSnap code?

24 A. They do. They have the full ability to configure it.

25 Q. And so looking at the evidence you saw in the screen and

1 the source code and documentation, what's your opinion
2 regarding element B?

3 A. Element B is present. So let's put a checkmark there,
4 and we can move on now to element C.

5 Q. Are there additional definitions from the Court that are
6 important to look at here?

7 A. Yes. So element C is "capture the image of the check
8 with the camera when the image of the check passes the
9 monitoring criterion."

10 And, again, when you pass the monitoring criterion, what
11 you'll see is this screen, success, and the display freezes.
12 The Court gave us the definition for when the image of the
13 check passes the monitoring criterion to mean "capture the
14 image of the check with the camera at or after the moment the
15 image of the check passes the monitoring criterion."

16 And then the Court gave us a definition of 'passes the
17 monitoring criterion' to mean "determining that a particular
18 monitored criterion is within the pre-determined range."

19 Q. And did you apply those definitions to analyze the PNC
20 source code?

21 A. I did. So here, for example, is the pre-determined range
22 portion of that, and we've seen this source code just a moment
23 ago. And, look, it has -- it's testing for ranges. This is
24 greater than or equal to for brightness. This is less than a
25 max for skew, greater than or equal to for rotation angle.

1 So it's checking to see if the criterion is within a
2 pre-determined range.

3 Q. So that's all -- demonstrates the second half of element
4 C. Is that right?

5 A. That's correct.

6 Q. And then did you also analyze the part of the Court's
7 definition regarding the word 'when'?

8 A. I did. So that is, again, when is at or after. So at or
9 after passing the monitoring criterion. Here is the source
10 code that does that.

11 Now, this is 120 lines. I've cut out the main pieces,
12 but here is 'handle preview frame,' and the frame's coming in
13 here, it's called frame, and you can see it's bytes. It's
14 sent to something called analyzer.analyze. And what that
15 returns is whether or not it passes the monitoring criterion.

16 If it passes the monitoring criterion, what it does is it
17 captures the frame, it puts that frame in a JPEG file, it adds
18 extra information to it, and that is what ultimately gets
19 submitted to the server.

20 Q. Now, you mentioned the term JPEG. Is that the same JPEG
21 that's been discussed with other witnesses that you've seen
22 here in this court yesterday and today?

23 A. Yes. JPEG stands for Joint professional -- no, let's
24 see, Photographers Expert Group. That's a standard used to
25 store, photos and it is the same as what we've heard.

1 Q. And the PNC system uses JPEGs. Is that correct?

2 A. That's correct.

3 Q. Now, is there any difference at all in the PNC IOS
4 portion of the code versus the PNC Android code?

5 A. Yeah, there's a little difference and they're both trying
6 to deal with the fact that today you have very high resolution
7 cameras. And so in the IOS version, it actually captures the
8 best of five frames that pass the criterion, and again that
9 still satisfies the claim element.

10 In the Android version, a capture, it sees one frame that
11 passes the criterion and then sets a timer to capture the next
12 one that passes the criterion. And, again, that also
13 satisfies the claim element.

14 Q. Now, even though you found the element -- actually I
15 should ask you, I think you've now been through all the pieces
16 of element C. But did you conclude that the entirety of
17 element C was satisfied by PNC code?

18 A. I did.

19 Q. And even though you reached that conclusion, did you then
20 go on and also perform a separate doctrine of equivalents
21 analysis?

22 A. I did. And here's that analysis. So, in addition, the
23 PNC-accused system is substantially the same. It performs
24 substantially the same function. The image is transmitted to
25 the depository only after the app determines that the image

1 has passed one or more monitoring criterion.

2 It does it in substantially the same way by capturing the
3 image -- capturing the image data, for example, in a JPEG file
4 format encoded with metadata. And it achieves substantially
5 the same result. It only transmits check images to the
6 depository that are likely to be successfully deposited or
7 processed.

8 Q. And then, in conclusion, what opinion did you reach
9 regarding element C?

10 A. Okay. So that's present, so let's put a checkmark there.

11 Q. So there is one more element of the '571 Patent. Did you
12 analyze element D?

13 A. Yes. Element D is "provide the image of the check from
14 the camera to a depository via a communication pathway between
15 the mobile device and the depository."

16 And, in fact, we've already seen this code. I showed it
17 earlier for wireless network. And what I've done here is I've
18 included a couple of other lines that show the back image and
19 the front image getting pulled from the image that's captured.

20 And then this is that same code that uses the carrier to
21 send the images to the server.

22 Q. So what is your conclusion regarding infringement of
23 claim 1 of the '571 Patent as a whole?

24 A. Claim 1 of the '571 Patent, based on all the evidence I
25 presented, is infringed in the PNC Mobile Deposit System.

1 Q. Did you also analyze infringement of claim 9?

2 A. I did. And claim 9 is one where much of the same
3 evidence we saw on claim 1 satisfies elements of claim 9.
4 That includes the first element A, a non-transitory
5 computer-readable medium. That in fact is identical to the
6 first element of claim 1.

7 And then elements from C, monitoring an image of the
8 check in the field of view of the camera, down through E,
9 transmitting the image of the check from the mobile device to
10 a deposit system, all of those require the same evidence that
11 we saw in analyzing claim 1.

12 Q. What did you find in the source code regarding the last
13 element, element B?

14 A. Element B is "initialize a software object on a mobile
15 device operated by a user, the software object configured to
16 communicate with a camera." And here I found that's present.
17 Here is the PNC mobile app. It initializes a software object,
18 and it tells it to use the camera to take a picture of the
19 front of the check.

20 Q. And that's from PX 308?

21 A. That is.

22 Q. What was your conclusion regarding claim 9?

23 A. Okay. So based on all of that evidence, all the elements
24 are present, so claim 9 of the '571 is infringed by the PNC
25 Mobile Deposit System.

1 Q. Did you go on to analyze dependent claim 2?

2 A. I did. Dependent claim 2 goes on "further comprising
3 instructions that provide feedback via the mobile device to a
4 user of the mobile device." And we've seen that. We saw the
5 code that actually does that. That provides the feedback to
6 the user the mobile device.

7 So this is present. We can put a checkmark there.

8 Q. Then did you also analyze claims 12 and 13?

9 A. I did. So claim 12 is adding to claim 9 that the
10 monitoring criterion comprises light contrast or light
11 brightness of the image. And we saw the source code for that.
12 It does look at light brightness and light contrast.

13 Claim 13 is a non-transitory computer-readable medium of
14 claim 9, and it goes on, where the criterion is skewing of the
15 image or warping of the image. And, indeed, it looks at skew
16 and rotation angle, which would be warping. So it does that.
17 And, therefore, these both are infringed.

18 Q. Can you summarize, Doctor Conte, your findings regarding
19 infringement of the '571 patent?

20 A. Yes. In my opinion, for all the evidence I presented,
21 all of the asserted claims, 1, 2, 9, 12, and 13, are infringed
22 by the PNC Mobile Deposit System.

23 Q. Now, turning to a slightly different topic, do you have
24 an understanding of whether PNC has made an argument that even
25 if all elements are present, it still should not be

1 responsible for the infringement?

2 A. My understanding is that, yes, they made that argument.

3 Q. And you've talked about this sort of throughout this
4 presentation today. But for the jury, have you prepared a
5 summary highlighting some of the reasons that that is
6 incorrect?

7 A. I have. So, for example, PNC controls and benefits from
8 the system. So they control the system. Their software
9 actually creates the system when you launch the mobile app and
10 it reaches out to the software running the PNC software
11 running on the server.

12 And they also benefit from this because, of course, they
13 receive mobile check deposits.

14 Q. What's the second high-level reason in your summary?

15 A. So PNC makes the system by assembling system components
16 by using its software. And, again, the apps form the system
17 by communicating back and forth. They form the system when
18 you launch the app. And they assemble it from system
19 components.

20 Q. And then is there even a third reason that applies to
21 some of the claims at issue?

22 A. There is. So if you recall, the '681 Patent, claim 30,
23 and all of the '571 Patent claims, were the ones that talked
24 about that computer-readable media. And these are infringed
25 by PNC's own computers. So at PNC's own computers, their

1 development computers, they have the app.

2 Q. So switching gears again, could you summarize for us
3 exactly which products and time frame are accused of
4 infringement in this specific litigation?

5 A. Sure. So those are the PNC IOS versions, and that's from
6 April 2016 up through mid 2021, and the PNC Android releases
7 from September 2017 up through mid 2021.

8 Q. And you have rendered an opinion that all of those
9 versions infringe the four patents at issue in this case. Is
10 that correct?

11 A. I have. That is my opinion, yes.

12 Q. At some point in 2021, about a year into the litigation,
13 do you have the understanding that PNC stopped using that
14 specific product accused of infringement and launched a new
15 product?

16 A. Yes. That's this infamous 4.20.1 we've been hearing
17 about.

18 Q. And to be clear, are you offering an opinion that that
19 new product infringes the '432, '605, or '681 Patent?

20 A. I'm not.

21 Q. And, now, did you -- are you aware that PNC has made an
22 argument as part of their damages case that they had some kind
23 of alternative, that they could have used this product
24 earlier?

25 A. I am aware of that.

1 Q. Do you have an opinion on whether PNC has proven that it
2 would have been viable from a patent perspective for PNC to
3 have made those changes earlier?

4 A. It would not have been. So let's go over what their
5 alternative does. First, it disables the auto-capture feature
6 temporarily.

7 Second, it omits the post-capture screen with the retake
8 photo functionality. And, again, the function of that screen
9 is to try to get better images.

10 And then, third, instead of the user entering the dollar
11 amount of the check via the keypad, the user indicates the
12 check amount by confirming an amount displayed.

13 Now, this alternative does not avoid infringement. USAA
14 owns other patents in the 2006 family, the '598, the '638, and
15 the '136 Patents, and they do not require any of auto-capture,
16 retake photo screen, or keypad entry of an amount.

17 Q. And so if PNC -- actually let me ask you this. Are you
18 aware -- you've reviewed a lot of the deposition transcripts
19 and expert records reports from the PNC side. Is that right?

20 A. That is correct.

21 Q. Are you aware of any PNC witness ever disputing as part
22 of this case that the new product infringes these other USAA
23 patents?

24 MR. LANTIER: I object, Your Honor.

25 THE COURT: State your objection.

1 MR. LANTIER: This is not in the report, and it
2 violates Judge Payne's ruling and motion in limine 1B.

3 MS. GLASSER: It certainly doesn't violate the
4 ruling. But the reason it's not in his report is he had to
5 serve his report first, and he didn't get a chance to see the
6 other side's report until after he had served it.

7 MR. LANTIER: Your Honor, he's acknowledged he never
8 offered an opinion in a report in this case that these patents
9 are infringed.

10 MS. GLASSER: Well, that's absolutely incorrect
11 which we'll get to in a moment, but...

12 MR. LANTIER: Your Honor, there's nothing for
13 anybody to respond to. He had not offered an opinion in this
14 case that those patents are infringed. He never got through
15 the elements and said, here's the evidence for each element.

16 THE COURT: Is that in dispute, Ms. Glasser?

17 MS. GLASSER: Doctor Conte in his report reviewed
18 and attached extensive claim charts regarding PNC's
19 infringement of the other three patents, though, of course
20 it's PNC's burden to prove a non-infringing alternative. And
21 so he simply stated he reviewed that and that none of it
22 avoided infringement of those patents.

23 PNC's expert then chose not to respond in his rebuttal
24 report.

25 MR. LANTIER: Your Honor, it's not PNC's burden to

1 prove a non-infringing alternative. I hesitate to state more.

2 THE COURT: Well, none of these three patents that
3 are on the screen are at issue in this case, and this witness
4 is not offering opinion that the version 4.20.1 infringes any
5 of the asserted patents in this case. I think that's clear.

6 MS. GLASSER: He actually is with respect to the
7 '571, which we'll get to in a moment.

8 THE COURT: All right. With regard to the MRDC
9 patents.

10 MS. GLASSER: With the 2006, correct, Your Honor.

11 THE COURT: The 2006 MRDC patents, he is not
12 asserting any allegation in his report or otherwise that that
13 4.20.1 product infringes those three patents.

14 MS. GLASSER: Correct, Your Honor.

15 THE COURT: Okay. And it's my reading -- well, I'll
16 stop there. Let me review the remainder of this with you-all
17 at the bench. Approach the bench, please.

18 (The following was had outside the hearing of the
19 jury.)

20 THE COURT: I have looked at Judge Payne's order,
21 and I think it clearly says -- I think, on balance, it clearly
22 says that 4.20.1 is a non-infringing alternative as to the
23 three 2006 patents.

24 I am not going to let you on cross, Mr. Lantier, bolster
25 that conclusion with the imprimatur of the Court.

1 MR. LANTIER: Understood.

2 THE COURT: You can simply say it's a fact, is it
3 not, that these three or this 4.20.1 is a non-infringing
4 alternative as regards those three patents?

5 MS. GLASSER: Your Honor, I think -- can I show you
6 the rest of the Court's order?

7 THE COURT: I read it backward and forward, and I
8 will grant you, Ms. Glasser, it perhaps in hindsight could
9 have been written a little more clearly. But I've read it
10 completely, and on balance I believe it holds for the
11 proposition and rules that 4.20.1 is a non-infringing
12 alternative as to those three patents. It is not established
13 that it's a non-infringing alternative as to the '571 Patent.

14 And it also holds that 4.20.1 does not infringe any of
15 the three 2006 MRDC patents. And that's -- and I'm happy for
16 you to explore that on cross, but you're going to have to do
17 it as an established fact and not try to bolster it with the
18 ratification or approval of the Court.

19 MS. GLASSER: May I be heard briefly on a small
20 subpart of that?

21 THE COURT: You may, and then I want to get back to
22 what's on the screen now.

23 MS. GLASSER: Which is that I think what counsel is
24 going to do which concerns me is there is the phrase
25 non-infringing and then there's the legally relevant phrase

1 that Judge Payne addresses later in that order that something
2 isn't available or viable non-infringing alternative.

3 And he also ruled later in that order that PNC had not
4 shown that it is actually under the law an available
5 non-infringing alternative because when you just infringe
6 other patents instead --

7 THE COURT: As to the '571 Patent.

8 MS. GLASSER: As to all of them. I can show it to
9 Your Honor if I can go grab the binder. I think this is a
10 critical issue because he's going to argue that in the closing
11 with some kind of sound bite from this and it's going to be
12 very misleading.

13 THE COURT: All right.

14 MR. LANTIER: Your Honor, we're not going to mislead
15 anyone in the closing. I can assure you of that.

16 THE COURT: Well, don't expect me to ask her to
17 agree that you're not going to do that or you agree that she's
18 not going to do that.

19 MR. GLASSER: I have it highlighted. Is it okay for
20 me to go get it --

21 THE COURT: Go get your copy. I have my copy.

22 MS. GLASSER: So the two most important parts I
23 think are right up at the top here, page 10. And then at the
24 bottom where it says, Ultimately PNC is the party contending
25 that it has an NIA, will need to persuade the jury that

1 version 4.20.1 is available to it. And that's all he -- in
2 this middle part, too, is also really critical. USAA contends
3 under AstraZeneca a proposed alternative covered by patents
4 outside the immediate lawsuit is not available and thus cannot
5 be an NIA for damages purposes, which is the only purpose
6 they're offering it for.

7 THE COURT: But this is talking about 4.20.1 as to
8 the '571 Patent.

9 MS. GLASSER: Right. But if it infringes other
10 patents --

11 THE COURT: The assertion is that it may infringe
12 other patents --

13 MS. GLASSER: Yes.

14 THE COURT: -- in PNC 3 --

15 MS. GLASSER: Yes.

16 THE COURT: -- and may not be available as a
17 non-infringing alternative here.

18 MS. GLASSER: Correct. And that's why I don't want
19 him to use the phrase non-infringing alternative because, as
20 Judge Payne held, he says, the Court agrees that something
21 that's covered by patents outside the lawsuit, even though the
22 alternative does not infringe the asserted patents, could
23 therefore be unavailable, and then ultimately says PNC bears
24 that burden. And so --

25 THE COURT: I understand. But we're talking about

1 4.20.1 as a non-infringing alternative as to the '571 patent,
2 and it's not -- that order does not hold that it is a
3 non-infringing alternative as to the '571 patent.

4 MS. GLASSER: And I apologize, Your Honor, but what
5 he's talking about isn't the patents in the suit. He is
6 talking, under AstraZeneca, that a proposed alternative
7 covered by patents outside the immediate lawsuit cannot be an
8 NIA at all.

9 And so I think it's fine for him to say they're not
10 infringing. I just don't think he should use the phrase
11 non-infringing alternative because that's going to walk right
12 into what the damages instructions are. Judge Payne has
13 already addressed this correctly.

14 MR. LANTIER: I don't think that's an issue, Your
15 Honor.

16 THE COURT: Say that again?

17 MR. LANTIER: Do you want me to just say it's a fact
18 that it's not infringing?

19 THE COURT: If you are satisfied with that, that
20 satisfies me.

21 MR. LANTIER: Yes, Your Honor. That's fine.

22 THE COURT: Now, if we've covered this report and
23 recommendation and its impact, I want to talk about where we
24 go from here with regard to what's left on the screen.

25 MS. GLASSER: I'm sorry. It's in another binder.

1 So the only question that was left is as to this issue
2 about whether there's infringement of the other three patents.

3 THE COURT: The other three being the 2006 MRDC
4 patents.

5 MS. GLASSER: The three in the 246 case that he was
6 just talking about.

7 THE COURT: Okay. What we're calling PNC 3.

8 MS. GLASSER: Sure, yes. And actually, I mean, it's
9 not critical that I ask the question. Obviously we can just
10 ask Mr. Bovik the same thing. As long as we're allowed to ask
11 Mr. Bovik the question, which I'm not sure why we wouldn't be,
12 I don't necessarily --

13 THE COURT: Tell me what the question is.

14 MS. GLASSER: Does any PNC witness dispute as part
15 of this case that PNC's new product infringes the other
16 patents? Mr. Bovik decided not to respond to that.

17 MR. LANTIER: Well, that would be improper, Your
18 Honor. That's a burden shift.

19 THE COURT: I don't see any basis to talk about
20 whether or not patents that are not asserted in this case are
21 or are not infringed.

22 MS. GLASSER: We'll do a brief for you on that.
23 Judge Payne did address it and held that it was relevant under
24 AstraZeneca and a couple of other cases. It's fairly well
25 established. I think we can -- we can brief it for you.

1 THE COURT: Well, at least as regards to Doctor
2 Conte, I'll carry it as to your later witness, but as to
3 Doctor Conte, you don't need to ask -- you should not ask that
4 question.

5 MS. GLASSER: Would it be helpful to do the brief on
6 the topic?

7 THE COURT: Well, we need to continue with the
8 witness.

9 MS. GLASSER: Yes. And I'm happy to not go there
10 now, but would it be helpful for us to do that tonight, just
11 for upcoming events?

12 THE COURT: It might be.

13 MS. GLASSER: Okay. Thank you.

14 THE COURT: So where are we?

15 MS. GLASSER: So I can just move on to the '571
16 Patent issue then.

17 THE COURT: All right. Do we have an unanswered
18 question that's still barring an objection?

19 MR. LANTIER: I think if you sustain the objection,
20 Your Honor, then there's nothing further for right now. Just
21 to the question so the witness doesn't answer.

22 MS. GLASSER: And I can just withdraw it.

23 MR. LANTIER: If you withdraw the question, that's
24 fine, too.

25 THE COURT: Either way. Okay.

1 MR. LANTIER: Thank you, Your Honor.

2 (The following was had in the presence and hearing
3 of the jury.)

4 THE COURT: All right. Ms. Glasser, where are we on
5 this unanswered question?

6 Q. (BY MS. GLASSER) So I'm not sure if any of us have the
7 exact question in mind, but I can withdraw that and focus you
8 on the '571 patent.

9 THE COURT: All right. Let's move on.

10 Q. (BY MS. GLASSER) So as to the patents you just discussed
11 for us, your opinion regarding a set of three other USAA
12 patents that are not the ones asserted in this case just to
13 orient us to where we're at.

14 A. Okay.

15 Q. So I want to talk to you now about the patents in this
16 case, and you mentioned a moment ago as well that you're not
17 offering an opinion in this case that the new PNC product
18 infringes the 2006 patents. Correct?

19 A. That's correct.

20 Q. But what about the '571 Patent, this new design? Did PNC
21 even avoid the '571 Patent with that new design?

22 A. No, they did not. I mean, PNC deactivated parts of the
23 code so that does not perform auto-capture, but the same
24 infringing code is still present in the PNC app, and it can be
25 reactivated with, you know, flip of a switch.

1 Q. And you said that it doesn't perform auto-capture. Your
2 slide says by default?

3 A. By default. That's correct.

4 Q. So you talked earlier about there is two ways that the
5 '571 Patent was infringed during that 2006 to 2021 time
6 period, infringed on the mobile phone itself and then also on
7 the PNC computer system. Is that right?

8 A. That's right.

9 Q. The new product, does it still infringe in both ways or
10 just one?

11 A. Just on the PNC development servers.

12 Q. Now, did you review any PNC testimony that further
13 confirmed your opinion that that infringing '571 code is still
14 in use on the PNC internal system?

15 A. I did. Here is testimony from Mr. Alexander Goodstein,
16 and he was asked, "And you still actually have auto-capture in
17 your source code. Correct?"

18 And he answered, "I have not reviewed the source code,
19 but I believe that it is still in my text source code."

20 Q. Thank you, Professor Conte.

21 Could you just summarize for us, we've been here a while
22 this afternoon, summarize for us at a high level your ultimate
23 expert opinions presented in this case?

24 A. Yes. For all the reasons with all the evidence I
25 presented, it's my opinion that PNC Mobile Deposit System

1 infringes all USAA asserted patent claims. That includes the
2 '432 Patent, '681 Patent, '605 Patent, and the '571 Patent
3 asserted claims.

4 Q. Thank you, Professor Conte.

5 THE COURT: You pass the witness, counsel?

6 MS. GLASSER: Pass the witness. Thank you, Your
7 Honor.

8 THE COURT: All right. Ladies and gentlemen, we've
9 been back right at two hours since lunch. We're going to take
10 a short recess. When we come back from recess, the Defendant
11 will cross-examine Doctor Conte.

12 You can simply leave your notebooks in your chairs, don't
13 discuss the case among yourselves, take this opportunity to
14 stretch your legs and get a drink of water, and we'll continue
15 shortly.

16 The jury's excused for recess.

17 (Whereupon, the jury left the courtroom.)

18 THE COURT: All right, counsel. Take about five
19 minutes and then lead and local counsel should meet me in
20 chambers and we'll see where with we are with regard to Mr.
21 Kennedy.

22 The Court stands in recess.

23 (Brief recess.)

24 THE COURT: Be seated, please.

25 Mr. Lantier, are you prepared to cross-examine the

1 witness?

2 MR. LANTIER: Yes, Your Honor.

3 THE COURT: You may go to the podium and prepare.

4 And while he's doing that, let's bring in the jury.

5 Before you do that, though, Mr. Mixon, are the monitors going
6 to continue in their current status during this
7 cross-examination?

8 MR. LANTIER: Thank you for asking. There's no need
9 to shield the gallery from the monitors.

10 THE COURT: And it's been obvious to me while the
11 direct examination of Doctor Conte's been going on that there
12 has been people who I don't recognize in the gallery standing
13 up and leaning forward so they can see the monitors that are
14 on the tables here.

15 So I don't know how efficient this process has been, but
16 if we're going to continue with that kind of sealing, we're
17 going to need to make sure that the monitors on counsel tables
18 are not visible by those in the gallery even with far-sighted
19 abilities.

20 MR. LANTIER: Thank you, Your Honor.

21 THE COURT: And if it's Defendant's position we
22 don't need to maintain that, then I direct the monitors be
23 turned back on in the gallery.

24 MR. LANTIER: Yes, Your Honor. And I don't believe
25 I'm showing any third-party source code. But if the plaintiff

1 notices something, I would --

2 THE COURT: I doubt the Plaintiff will be bashful.
3 All right. Let's bring in the jury.

4 (Whereupon, the jury entered the courtroom.)

5 THE COURT: Welcome back, ladies and gentlemen.
6 Please have a seat. We'll proceed with cross-examination of
7 Doctor Conte by Defense counsel.

8 Mr. Lantier, you may proceed.

9 MR. LANTIER: Thank you, Your Honor.

10 CROSS EXAMINATION

11 BY MR. LANTIER:

12 Q. Good afternoon, Doctor Conte.

13 A. Good afternoon.

14 Q. I'm Greg Lantier. It's nice to meet you.

15 A. Same here, Greg -- Mr. Lantier.

16 Q. You were asked in this case to offer opinions on
17 infringement. Correct?

18 A. That's correct.

19 Q. And you were not asked to offer any opinions on
20 invalidity. Correct?

21 A. That's correct.

22 Q. In fact, you're the only witness that the jury will hear
23 from who will testify that PNC infringes. Correct?

24 A. I'm not sure.

25 Q. You, sir, have never used PNC's mobile app. Correct?

1 A. I have not.

2 Q. Now, let's talk for a moment about your work. Okay?

3 A. Yes.

4 Q. You informed the jury that you're a professor at Georgia
5 Institute of Technology. Is that right?

6 A. Professor and associate dean, yes.

7 Q. And I don't mean any offense, but on occasion you have
8 referred to that as your, quote, so-called job. Correct?

9 A. Yes.

10 Q. Now, in this case -- strike that.

11 Your work as an expert witness in this case is separate
12 from your work at Georgia Tech. Correct?

13 A. Not exactly.

14 Q. Sir, it's no part of your obligation or your duties as a
15 professor at Georgia Tech to serve as an expert in litigation.
16 Correct?

17 A. That's correct.

18 Q. And for serving as an expert in this case, you're being
19 paid \$600 an hour. Correct?

20 A. That's correct.

21 Q. Now, this isn't the first time that you've served as an
22 expert in a case with Irell & Manella serving as counsel.
23 Correct?

24 A. That's correct.

25 Q. Irell & Manella is the law firm where Mr. Sheasby and Ms.

1 Glasser are partners. Correct?

2 A. That's correct.

3 Q. And it's in Los Angeles?

4 A. I don't know if it has other offices, sir.

5 Q. In fact, this is about the 10th case that you've worked
6 on with Irell & Manella. Correct?

7 A. I haven't counted them, sir. I'm sorry.

8 Q. Sir, there's a binder in front of you that contains your
9 deposition at tab 2. And I would refer you to your
10 deposition -- excuse me. I'll refer you to the document at
11 tab 2 at page 139, line 17 to 140, line 1. Just please let me
12 know when you're there.

13 A. These are the actual pages. Right? This is condensed.

14 Q. Yes, the transcript pages.

15 A. Okay. Yes. Okay. That refreshes my memory.
16 Approximately 10 cases.

17 Q. So the deposition transcript refreshed your recollection
18 that you've worked with Irell & Manella on approximately 10
19 cases. Correct?

20 A. Yeah. I couldn't recall the exact number. Thank you.

21 Q. And, in fact, you can't even estimate how much money you
22 have been paid over the years serving as an expert in cases
23 with Irell & Manella. Correct?

24 A. Yeah. I haven't sat down and estimated how much money I
25 have made serving on cases where Irell & Manella represented a

1 defendant.

2 Q. Sir, did you mean to say where they represented the
3 defendant or the plaintiff?

4 A. Oh, I'm not quite sure if they were all plaintiff or
5 defendant. So either case, sorry.

6 Q. But in every one of those cases, you were on the same
7 side of the case as Irell & Manella. Correct?

8 A. In the cases where I was retained by clients of Irell &
9 Manella, yes.

10 Q. You're sure that you've been paid more than a hundred
11 thousand dollars for your work in cases with Irell & Manella.
12 Correct?

13 A. That sounds about right.

14 Q. It may have been more than \$500,000. Correct?

15 A. Over 10 cases, yes.

16 Q. And you can't rule out that you've been paid over \$1
17 million for your work in cases with Irell & Manella. Correct?

18 A. Over 10 cases? It may well be.

19 Q. Okay. And, sir, it's true that you've owned a Ferrari.
20 Correct?

21 A. I no longer do, but yes. That was stupid.

22 Q. Okay. I'd like to turn to your opinions on the patents
23 now. Would that be okay?

24 A. Yes.

25 Q. And I'd like to establish one point so that we can move

1 forward in a hopefully expeditious way here. And, sir, that
2 point is this: If each and every element of a claim is not
3 present in a product that you're analyzing, then there is no
4 infringement. Correct?

5 A. If that includes the doctrine of equivalents, then I
6 would agree.

7 Q. Yes. Each and every element must be present either
8 literally or under the doctrine of equivalents or there is no
9 infringement. Correct?

10 A. That's my understanding, yes.

11 Q. So, in other words, if we identify at least one element
12 of a patent claim that's not present in the accused PNC
13 systems, then you would agree we don't need to do any more,
14 there's no infringement. Correct?

15 A. If you identify?

16 Q. Correct.

17 A. Well, I disagree with your identification of those items.

18 Q. Fair enough, sir. If it is the case that one element of
19 a claim is not present in PNC's system, then that system does
20 not infringe that claim. Correct?

21 A. If one element is neither literally nor -- let me say it
22 this way. Not present literally or the doctrine of
23 equivalents, then, yes, that's correct.

24 MR. LANTIER: Now, could we please call up DDX 12,
25 Mr. Nickels? I'm sorry. Mr. Nickels, demonstrative Exhibit

1 No. 12.

2 Q. (BY MR. LANTIER) Doctor Conte, I'll move on without the
3 exhibit. I don't think we need it. Do you remember in your
4 demonstrative exhibits, you broke out the four asserted
5 patents in this case into two groups. Is that right?

6 A. I'm not the only one, but yes.

7 Q. So there was a group that you referred to as the 2006
8 generation. Do you remember that?

9 A. Yes.

10 Q. And then there was one patent that's referred to as the
11 2009 generation. That's the '571 Patent. Correct?

12 A. One patent in this case, yes.

13 Q. So the three patents that are in the first group, the
14 2006 generation, are the '432 Patent, the '681 Patent, and the
15 '605 Patent. Correct?

16 A. That is correct.

17 Q. Now, you discussed version 4.20.1 during your direct.
18 Correct?

19 A. That is correct.

20 Q. And version 4.20.1 launched in May of 2021. Correct?

21 A. Yes. I believe that's correct.

22 Q. It's been in use for a year now. Correct?

23 A. That would be a year, yes.

24 Q. And 4.20.1 was the version of PNC's mobile app that was
25 in use when you first offered an opinion that there is

1 infringement. Correct?

2 A. I'm not sure if that's the case.

3 Q. Sir, you served your opening report on November 24th,
4 2021. Correct?

5 A. Oh, I see. I believe PNC had already released that
6 version at that point, yes.

7 Q. Yes. PNC had released it about six months earlier.
8 Correct?

9 A. Yeah, that's six months. Seven, yeah.

10 Q. Now, it is a fact that version 4.20.1 does not infringe
11 the '432 Patent. Correct?

12 A. I haven't determined that one way or the other.

13 Q. Sir, do you understand that in this case it is a fact
14 that version 4.20.1 does not infringe the '432 Patent?

15 A. Okay.

16 Q. And you understand that it is a fact that version 4.20.1
17 does not infringe the '681 Patent. Correct?

18 A. Same answer. I don't recall making that opinion, but,
19 okay, I'll agree to that.

20 Q. Sir, you understand that in this case, that is a fact
21 that version 4.20.1 does not infringe the '681 Patent.
22 Correct?

23 A. I don't understand that, but I'll take your word for it
24 and we can move on instead of debating it.

25 Q. And it is a fact that version 4.20.1 does not infringe

1 the '605 Patent. Correct?

2 A. Same answer. Again, I'll take your word for it.

3 Q. And, sir, you certainly did not offer any opinion that
4 version 4.20.1 infringed any of those three patents. Correct?

5 A. I believe that's correct.

6 Q. And those are all three of the 2006 generation patents.
7 Correct?

8 A. That's correct.

9 Q. All right. Would it be okay with you if we discussed the
10 '605 and '681 Patents first?

11 A. It would be fine with me.

12 Q. If you need to reference it, the '681 Patent, which is PX
13 3, is at tab 7 of your binder.

14 A. Thank you.

15 MR. LANTIER: But I'd ask if we call up claim 12 of
16 the '681 Patent.

17 Q. (BY MR. LANTIER) And claim 12 is one of the two
18 independent claims that you said PNC infringes with the old
19 version of its mobile app. Correct?

20 A. That's correct.

21 Q. Okay. Now I'd like to -- since you've already discussed
22 that you offered no opinion of infringement for version
23 4.20.1, would it be okay if we focused now on the old version
24 of PNC's app?

25 A. I offered no opinion with respect to this patent, that's

1 correct.

2 Q. And now you understand we'll talk about the prior version
3 that was discontinued. Correct?

4 A. The version in the infringement period, yes.

5 Q. If we could focus in on the portion of the claim, the
6 element found at column 15, lines 36 to 37.

7 A. I thought he was going to blow that up.

8 Q. He is going to blow it up, sir. I was waiting for the
9 same thing.

10 Okay. Do you see this element here, presenting the
11 photos of the check to the customer after the photos are
12 taken?

13 A. I do.

14 Q. Okay. And this limitation is present in claim 12 of the
15 '681 Patent. Correct?

16 A. That is correct.

17 Q. And it's present in claim 30 of the '681 Patent, which is
18 the other claim you talked about. Correct?

19 A. That's correct.

20 Q. And it's also present in claim 12 of the '605 Patent.
21 Correct?

22 A. I believe that's correct as well.

23 Q. And when you talked to the jury about what evidence you
24 were citing to meet this particular claim element, you relied
25 on the same evidence for all three of those claims. Correct?

1 A. I believe that is correct.

2 Q. That was where you had your arrows, if the jury
3 remembers. You had the two claims next to each other, and
4 then you had the arrows that went and you drew the same arrow
5 between those elements. Correct?

6 A. I didn't want to be here all day, so yeah.

7 Q. Understood.

8 MR. LANTIER: Could we switch to the elmo, please,
9 Ms. Brunson?

10 Q. (BY MR. LANTIER) Now, Doctor Conte, I want you to assume
11 for me that we have a check. Okay?

12 A. Okay.

13 Q. And the check has a front and it has a back.

14 A. Okay.

15 Q. Are you with me?

16 A. Yeah.

17 Q. Okay. We're going to take a mobile camera, an iPhone, an
18 Android -- Google Android phone, and we're going to take a
19 picture of the front of the check and we're going to take a
20 picture of the back of the check. Are you with me?

21 A. Yes.

22 Q. Now, one option that we have is we could take a picture
23 of the front, we could take a picture of the back, and then
24 decide not to show those pictures on the iPhone. Is that
25 right? That's one option we would have?

1 A. I assume so, sure.

2 Q. There's a second option. The second option is we could
3 take a picture of the front and we could take a picture of the
4 back, then we could show those two pictures to the iPhone
5 user. Correct?

6 A. Yes.

7 Q. Okay. So we'll call the first version take, take, not to
8 show, or no show. Okay?

9 A. One would work, but sure.

10 Q. Pardon, sir?

11 A. Using No. 1 would work, but sure. We can -- however you
12 say, sir.

13 Q. And we'll refer to option No. 2 as take, take, show,
14 show. Okay?

15 A. Yes.

16 Q. Because we're going to take the front, take the back,
17 show the two pictures to the user. Okay?

18 A. That's right. Those are the two options you presented.

19 Q. And there's one more option. Correct?

20 A. There might be more than one more. I haven't thought of
21 it.

22 Q. We could take a picture of the front, we could show it to
23 the user of the iPhone, then we could take a picture of the
24 back and we could show it to the user of the iPhone. Correct?

25 A. I can think of two more cases, but yes.

1 Q. Sure. And, sir, I assume you are saying you might show
2 only the front or only the back or something like that.
3 Correct?

4 A. Right. You could have take, not show. You could have
5 take, show, take, not show, et cetera.

6 Q. For simplicity, can we focus on these three main options:
7 you could take them and not show at all, you could take them
8 both and show them both, or you could take one, show one, take
9 one, show one. Is that okay?

10 A. For sake of argument, okay.

11 Q. All right.

12 THE COURT: Let me just clarify this. Counsel
13 structures the questions in the way he or she wishes and the
14 witness responds to those questions.

15 If you think there's some other way to do it, Doctor
16 Conte, unless he asks you is there another way to do it, you
17 wait until opposing counsel gets a chance to redirect and go
18 into it if opposing counsel chooses to.

19 It's not your place to tell him there's two other ways to
20 do this or that's not right. He'll put the proposals before
21 you in a question form the way he chooses to, and you need to
22 respond to that, but not offer extraneous comments or other
23 alternatives that are not called for.

24 And then when he's finished, Ms. Glasser will get a
25 chance to come back up and reexplore anything that she thinks

1 his questions have left open issues on that, from her
2 standpoint, she needs to re-examine.

3 But the witness is a responsive player here, not an
4 initiating player. Counsel are the initiating players in a
5 courtroom, and I want to make sure you understand that as we
6 go forward.

7 THE WITNESS: I do. My apologies, Your Honor.

8 THE COURT: All right. Let's proceed on that basis.

9 MR. LANTIER: Thank you, Your Honor.

10 Q. (BY MR. LANTIER) Now, if we could stick with the elmo,
11 the jury will remember, Doctor Conte, that you used some
12 demonstrative exhibits during your testimony. Correct?

13 A. I did.

14 Q. And I'd like to place before the jury and you the
15 two -- two of the demonstrative exhibits you used to
16 illustrate your infringement opinion on this particular
17 limitation. One of those was PDX 5.63. Is that right?

18 A. No, that's incorrect.

19 Q. You are right, sir. You tied these two limitations
20 together. Do you recall that? This is the limitation
21 instructing the customer to have the digital camera take
22 photos of front and back sides of the check. Correct?

23 A. That's correct.

24 Q. And you said that one was related to the other
25 limitation, which is on PDX 5.69, and that's this one here.

1 Correct?

2 A. That's correct.

3 Q. And that's the limitation presenting the photos of the
4 check to the customer after the photos are taken. Right?

5 A. That's correct.

6 Q. Now, on slide PDX 5.63, you placed two images of -- I
7 don't think the auto zoom -- it looks like we're a little out
8 of focus.

9 THE COURT: Try the wheel at the top.

10 MR. LANTIER: There we go. Thank you, Your Honor.

11 Q. (BY MR. LANTIER) On Exhibit PDX 5.63, you placed
12 together an image of capturing the front of a check followed
13 by an image of capturing the back of the check. Correct?

14 A. Yes, that's what I placed on that slide, yes.

15 Q. And then when we turn to PDX 5.69, you placed over the
16 top of one another review the front of the check and review
17 the back of the check. Correct?

18 A. Are you speaking about the images on the left of the
19 code?

20 Q. Yes, sir.

21 A. Yes, those are the images on the left.

22 Q. And you placed a little yellow exhibit sticker there.
23 Right?

24 A. I believe we didn't use the yellow.

25 Q. Okay. You may be correct on that, sir. We might have an

1 updated so maybe you didn't do that and I apologize for the
2 suggestion if I have it wrong.

3 Now, let's go back to PDX 5.63. This is the one where
4 we're showing capturing both the front and back of the check
5 right over the top of one another. Correct?

6 A. Yes.

7 Q. That's not how PNC's app actually operates. Correct?

8 A. I disagree.

9 Q. Well, sir, in PNC's old app, the first thing that happens
10 is that we capture the front of the check. Correct?

11 A. Yes.

12 Q. But the next thing that happens is not capturing the back
13 of the check. Correct?

14 A. I can't quite answer that. It depends on the granularity
15 of next.

16 Q. All right. Maybe if we put PDX 5.69 back up, it will
17 help us. Do you see that there?

18 A. Yes.

19 Q. The next thing that happens in PNC's app, do you see it
20 says, review front of check? Correct?

21 A. That's correct.

22 Q. The next thing that happens in PNC's app is that we
23 review the front of the check. Correct?

24 A. That's correct.

25 Q. But then to get the next thing that actually happens in

1 PNC's app, we've got to go back to your other demonstrative
2 and take capture the back of the check. Correct? Because
3 that's the next thing that happens?

4 A. Are you asking -- I'm sorry. So the next thing that
5 happens is capture back of check. Correct.

6 Q. So in PNC's app we capture the front of the check, we
7 review the front of the check. Correct?

8 A. Correct.

9 Q. The user decides whether to retake that photo. Correct?

10 A. That is correct.

11 Q. Then we capture the back of the check. Correct?

12 A. That is correct.

13 Q. And then if we go back to PDX 5.69, at this point after
14 that event, the back of the check is presented to the customer
15 for review. Correct?

16 A. That is correct.

17 Q. All right. So we can show that PNC's old app performs
18 take, take, show, show. Correct? I'm sorry. Excuse me, sir.
19 I'll strike that question. I misspoke.

20 We can see that PNC's old app does option 3, which is
21 take, show, take, show. Correct?

22 A. I would agree with either, but sure.

23 Q. And, sir, we can also agree that version 4.20.1 does
24 option 1. Correct--take, take, do not show?

25 A. I believe that's correct, yes. I don't recall, but I

1 believe that's correct.

2 Q. Okay. Now, you stood up during the opening statements
3 that were made yesterday by Mr. Sheasby. Correct?

4 A. I did.

5 MR. LANTIER: And if we could switch back, please,
6 Ms. Brunson, to the slides and call up PDX 1.5.

7 Q. (BY MR. LANTIER) Do you remember that -- while we wait
8 for that, I'll carry on. Do you remember that Mr. Sheasby --

9 A. Here it is.

10 Q. -- put this slide on the screen and said that PNC
11 accessed USAA's mobile app and it took USAA's technology?

12 A. I don't recall his exact words. I'm sorry, sir.

13 Q. Would it be helpful if I refreshed your recollection with
14 what he said specifically?

15 A. Yes, it would.

16 MR. LANTIER: Why don't we go to yesterday's
17 transcript at page 144, lines 18 to 24.

18 Q. (BY MR. LANTIER) So PDX 1.5 was on the screen and Mr.
19 Sheasby said, we saw a 2016 email in which PNC is once again
20 accessing USAA's application, and PNC executives are saying,
21 can we do this? How fast with we roll this out? Then he
22 talks about coveting technology and I think he talked about
23 being addicted to technology?

24 MS. GLASSER: Objection, Your Honor. That
25 transcript is not referring to this at all as you can even see

1 from the date in 2016. The other one he just showed was a
2 2009.

3 THE COURT: I'm sorry. I'm not following your
4 objection, Ms. Glasser.

5 MS. GLASSER: So the slide that Mr. Lantier just
6 presented had the date 2009, and he's now trying to read into
7 the record to refresh recollection allegedly about that
8 document, something that relates to a different email from
9 2016.

10 THE COURT: All right. What's your response to
11 that, Mr. Lantier?

12 MR. LANTIER: Your Honor, I think, as everybody will
13 remember, Mr. Sheasby was flipping through four slides quickly
14 at this point in his opening statement. If you want, we can
15 go to slide PDX 1.6. That is the 2006 email -- the 2016
16 email.

17 THE COURT: Approach the bench, counsel.

18 (The following was had outside the hearing of the
19 jury.)

20 THE COURT: I'd rather you go to the other slide. I
21 just told the jury in my preliminary instructions the
22 transcript would not be available when they retire to
23 deliberate.

24 MR. LANTIER: Okay. I'm sorry, Your Honor.

25 THE COURT: And now we're showing them the

1 transcript, and I don't want them to ask me to send it back
2 during their deliberation.

3 MS. GLASSER: Actually I was thinking about
4 objecting, but I didn't want to be disruptive. We are not to
5 show the transcripts during examination?

6 THE COURT: I would prefer that you seek leave to do
7 it because, again, I think it creates a possibility that would
8 generate confusion with the jury in my instructions. So let's
9 use your alternative method. Okay?

10 MR. LANTIER: Yes, Your Honor. And please accept my
11 apology.

12 THE COURT: Not a problem.

13 (The following was had in the presence and hearing
14 of the jury.)

15 MR. LANTIER: Could we take that down, please? And
16 we can go back to slide 1.6.

17 Q. (BY MR. LANTIER) Now, we'll remember that this was the
18 next slide that was shown to the jury, and it was suggested
19 that PNC set out to access these images of USAA's mobile app
20 and copy it. Correct?

21 A. I'm sorry. I don't recall exactly what he said here.

22 Q. Okay. Why don't we look at what PNC would have seen if
23 it went and looked at what USAA shows about its own mobile
24 app. Okay, sir?

25 A. Sure.

1 MR. LANTIER: Could we call up PX 905?

2 Q. (BY MR. LANTIER) Now, this is a video that I'd like to
3 play because it goes to the allegations that were made during
4 the opening yesterday that PNC accessed and took USAA's
5 technology.

6 MS. GLASSER: Objection, Your Honor, both to the
7 colloquy and I have a separate objection that might be best
8 made at sidebar with Your Honor's permission.

9 THE COURT: Approach the bench, counsel.

10 (The following was had outside the hearing of the
11 jury.)

12 THE COURT: You don't need to explain why you want
13 to do it and why you think it's helpful. That's a clear
14 sidebar comment. Just ask questions.

15 What's your other objection?

16 MS. GLASSER: So Doctor Conte's only addressing
17 infringement, and he is -- the deposit at mobile application
18 for purposes of showing infringement or non-infringement was
19 specifically excluded.

20 MR. LANTIER: Your Honor, this is responsive to the
21 allegations that were made during the willfulness part of the
22 case, and Doctor Conte is the only witness who we can ask
23 about how PNC's mobile app works. We need to be able to
24 defend ourselves when it's said that we copied their app to
25 show that we did not copy their app.

1 MS. GLASSER: Especially now with the colloquy that
2 was made, I don't see how the jury would possibly not be
3 completely confused about that and think this is somehow --

4 THE COURT: Tell me exactly what this video is going
5 to show.

6 MR. LANTIER: It will show two things, Your Honor.
7 It's a 40-second video. It will show that USAA's mobile app
8 and its public demonstration differs in this key regard from
9 PNC's mobile app. So it shows that we did not copy USAA's
10 mobile app because if we had copied their app, we would do it
11 the same way and we don't.

12 MS. GLASSER: And just leaving aside the other
13 problems with that, Doctor Conte's not permitted to talk about
14 willfulness. And so trying to have him say there is something
15 non-willful, I'm not sure how that could possibly be
16 appropriate. It's totally outside the scope of my --

17 MR. LANTIER: I'm not going to ask --

18 THE COURT: How does -- I'm going to have to insist
19 that everybody speak when I call on them. Everybody seems to
20 want to jump in as soon as the last word is out of the other
21 one's mouth, and I'm going to need to regulate the back and
22 forth on these objections, both at the bench and in the
23 courtroom.

24 Showing a video to show that the PNC product doesn't do
25 something the same way, how is that -- how is that relevant to

1 willfulness when it really seems to go directly to the
2 infringement issue?

3 MR. LANTIER: Because the allegation that's been
4 made is that PNC saw the USAA mobile app and took it or copied
5 the app. And if PNC had copied the app, it wouldn't --

6 THE COURT: I haven't heard anybody say that the
7 Defendant copied the Plaintiff's product. I've heard a lot of
8 allegations that the Defendant's products infringe the
9 Plaintiff's patents, but I haven't heard a copying word once
10 in this trial.

11 MR. LANTIER: I think that counsel may have been
12 trying to not use the word copy for the strategic reason.
13 What he said was to the jury yesterday in opening PNC accessed
14 USAA's mobile app and it took its technology. That is
15 tantamount to saying to the jury that PNC copied the mobile
16 app.

17 THE COURT: I will be honest with both of you. I'm
18 at a disadvantage unless I see the video. I'm happy to send
19 the jury out, watch it for 40 seconds, but with that added
20 context give you an answer to whether it can or can't be
21 played with this witness. But I'm not going to be able to
22 resolve this just listening to you go back and forth about
23 what it does and doesn't do.

24 MR. LANTIER: I understand, Your Honor. I would not
25 --

1 THE COURT: You know, the time that takes is going
2 to get charged to somebody. If you want me to go forward with
3 it, I'll do that. If you don't, then let's move on. It's
4 your call, Mr. Lantier.

5 MR. LANTIER: I understand, Your Honor. We would
6 like to go forward with it.

7 THE COURT: All right. Take your places.

8 (The following was had in the presence and hearing
9 of the jury.)

10 THE COURT: Ladies and gentlemen, there's a matter I
11 again need to take up outside of your presence. This will be
12 very short, I think.

13 If you'll simply close your notebooks, leave them in your
14 chairs, take an opportunity to get an extra recess that the
15 rest of us won't get, stretch your legs and get a drink of
16 water, and I think you'll be back in here very shortly.

17 I'm going to ask the jury to retire to the jury room at
18 this time.

19 (Whereupon, the jury left the courtroom.)

20 THE COURT: All right. Mr. Lantier, the jury's out
21 of the courtroom. If you'll exhibit this 40-second video that
22 we've been discussing at the bench, I will look at it and that
23 will aid me in deciding how to rule on the pending objections.

24 MR. LANTIER: Thank you, Your Honor. Just for
25 record purposes, this is PX 905. I'm not sure that I said

1 that on the record, and this was pre-admitted by Judge Payne.

2 THE COURT: You did not say that on the record.

3 Ms. Glasser, you're on your feet.

4 MS. GLASSER: I wanted to make one other comment
5 about the video as well in addition to the other issues that
6 we had with it, which is that I don't know the time period of
7 the video, so I'm not sure what he's about to show. But I'm
8 absolutely certain it's not from the time period of either of
9 those emails.

10 THE COURT: Well, why don't you sit down, we'll all
11 watch it, and then I'll let you make any additional comments
12 you think are appropriate. Let me see the video, please.

13 Is there audio that goes with it or just video?

14 MR. LANTIER: No, Your Honor, just video.

15 (Whereupon, Plaintiff's Exhibit No. 905 was played
16 in open court.)

17 THE COURT: That completes the video?

18 MR. LANTIER: Yes, Your Honor.

19 THE COURT: All right. I'll hear any additional
20 comments from Plaintiff.

21 MS. GLASSER: Sure. So to just briefly summarize
22 the first objection, it's outside the scope of the direct
23 examination because Doctor Conte addressed only infringement
24 and counsel has indicated he's allegedly not using this to
25 show infringement or non-infringement.

1 The second objection is that this has been expressly
2 excluded already for purposes relating to infringement and,
3 particularly with counsel's colloquy, it will be extremely
4 misleading in that regard.

5 And then, additionally, the video itself doesn't go to
6 any of these issues. It's from, I think, a completely
7 different time period. It also didn't fully show the step
8 that Mr. Lantier said he wanted to focus on.

9 THE COURT: All right. Mr. Lantier, do you have any
10 additional comments for me?

11 MR. LANTIER: Yes, Your Honor. This was an exhibit
12 that Plaintiff moved to put in evidence. Judge Payne allowed
13 it in evidence.

14 It shows that PNC did not copy USAA's mobile app or did
15 not access it and take its technology the way that was
16 represented to the jury during the opening statements.

17 And to the extent that counsel wants to redirect on the
18 time period that the video is from, that's okay, although the
19 app I believe worked the same way during the entire time
20 period.

21 THE COURT: You made a comment at the bench that
22 Doctor Conte was the only witness through which you could show
23 this. Explain to me why Doctor Conte is the only witness
24 through which you could show this.

25 MR. LANTIER: Because the relevant point here is

1 comparing what PNC is using to what it allegedly copied, and
2 the only witness who we can cross-examine about how PNC's
3 mobile app operates is Doctor Conte. He's the only one who's
4 analyzed that issue.

5 THE COURT: While it has been pre-admitted by Judge
6 Payne as a part of the pretrial process, it clearly doesn't
7 relate to the infringement issue and relates to the
8 willfulness -- or excuse me -- yes, the willfulness issue
9 vis-a-vis copying. I have not heard evidence of copying so
10 far, and Doctor Conte is an infringement witness for all
11 intents and purposes.

12 If there is overt evidence or testimony regarding copying
13 by PNC of USAA's product, I will certainly reconsider letting
14 this be shown in the Defendant's case in chief through one of
15 your witnesses, but at this point it does not seem to coincide
16 with the direct testimony of the witness, and I don't see how
17 this would be viewed by the jury as regards a willfulness
18 issue.

19 I see no way they will not view this solely as regards
20 the infringement issue. And it's not properly before the
21 Court for that.

22 We're not going to compare products to determine
23 infringement. We're going to compare the accused products to
24 the claims that are asserted.

25 At this point I'm going to deny your motion to proceed

1 with the video. If there is overt testimony or evidence that
2 clearly puts copying before the jury, or if there's at a later
3 point in the trial you think something has arisen that would
4 justify presenting this, and it seems to me this can be
5 presented through any PNC witness since it's a PNC video, I'll
6 certainly entertain a request to play it at a later time, but
7 not at this time with this witness.

8 MR. LANTIER: I understand, Your Honor. And I don't
9 think this changes anything you said. It's a USAA video
10 rather than a PNC video.

11 THE COURT: Well, I may have misspoken.

12 MR. LANTIER: It is a publicly available video, and
13 your point is well taken.

14 Because I'm sensitive to the jury time, can I ask about
15 one other line of questioning now to make sure we don't have a
16 repeat of this? And that is this.

17 THE COURT: I have no problem with that.

18 MR. LANTIER: This witness testified that he was --
19 that he served as the expert in the case against Wells Fargo,
20 and I would like to inquire of him as to how the Wells Fargo
21 mobile app operated because I think it goes both to the issue
22 of copying, but also more broadly to the issue of this
23 witness' credibility.

24 THE COURT: How does the factual inquiry as to how
25 the Wells Fargo product operates impact this witness'

1 credibility?

2 MR. LANTIER: Because, Your Honor, the Wells Fargo
3 product operated differently from the PNC mobile app, and he
4 has now said that both of them infringe this patent.

5 THE COURT: Well, and you're correct and I
6 appreciate you correcting me, that this is a USAA video and
7 not a PNC video. I still have no problem with it being played
8 later in the case if the copying issue is put forward.

9 But we are in the midst of the infringement portion of
10 the case. This witness on direct has gone through the
11 asserted claims and addressed each element, put his little
12 checks by them.

13 To play this video at this juncture, which reflects the
14 Plaintiff's product and not the Defendant's product, invites
15 an incorrect comparison as to the infringement issue and I
16 think there is more potential prejudice here than there is
17 probative value. And, consequently, I'm going to preclude the
18 playing of the video, the USAA video, at this time and I'm
19 going to preclude the inquiry as to the Wells Fargo product
20 for the very same reason.

21 If in the later portion of this trial when we don't have
22 the infringement expert for the Plaintiff who's just gone
23 through each of the elements of the claims on the witness
24 stand and if there is the introduction of direct claims of
25 copying, then I'll be glad to reconsider your request with

1 regard to both of those items.

2 MR. LANTIER: I understand, Your Honor.

3 THE COURT: All right. Let's bring the jury back
4 in.

5 (Whereupon, the jury entered the courtroom.)

6 THE COURT: Thank you for your cooperation, ladies
7 and gentlemen. Please have a seat.

8 All right. Let's proceed with your cross-examination,
9 Mr. Lantier.

10 MR. LANTIER: Thank you, Your Honor.

11 Q. (BY MR. LANTIER) Doctor Conte, could we speak now about
12 the '432 Patent?

13 A. Yes, Mr. Lantier.

14 Q. And if you'd like to reference it, it is found at tab 4
15 of your binder. It's PX 4 as well.

16 Claim 1 is the only independent claim of the '432 Patent
17 that you testified PNC infringes. Correct?

18 A. Correct.

19 Q. And so if PNC's old mobile app doesn't infringe claim 1,
20 then it doesn't infringe any of the asserted claims of the
21 '432 Patent. Correct?

22 A. That's correct, yes. If it doesn't infringe -- if it's
23 found to not infringe, then the dependent claims would not be
24 infringed, either.

25 MR. LANTIER: Now, could we please call up claim 1

1 of the '432 Patent? That's at column 14, lines 22 to 49.

2 Q. (BY MR. LANTIER) Now, Doctor Conte, claim 1 is a system
3 claim. Correct?

4 A. That's correct.

5 Q. And it's a system that comprises two things. Correct?

6 A. Yes, I believe, yes.

7 Q. One is a bank computer. We can see that down at line 40.
8 Correct?

9 A. Yes.

10 Q. There's no question that PNC is a bank and has computers.
11 Correct?

12 A. Correct.

13 Q. But the other element of claim 1 of the '432 Patent is a
14 customer's mobile device. Correct?

15 A. That's not quite precise.

16 Q. The system comprises a customer's mobile device that has
17 certain requirements and a bank computer that is programmed to
18 do certain things. Correct?

19 A. It's still not quite precise.

20 Q. All right. Are you disputing that the claim reads, "a
21 system comprising a customer's mobile device"?

22 A. I'm not disputing that.

23 Q. And these claims were written by USAA. Correct?

24 A. Yes.

25 Q. And they could structure the claims the way that they

1 chose to structure them. Correct?

2 A. Yes.

3 Q. Now, PNC, of course, does not sell customers their mobile
4 devices. Correct?

5 A. Correct.

6 Q. And direct infringement of a patent claim requires that
7 the Defendant make, use, sell, offer to sell, or import
8 something that meets each claim element. Correct?

9 A. I believe that's the definition, yes.

10 Q. And you agree that PNC does not offer to sell its
11 customers mobile devices. Correct?

12 A. I don't know one way or the other, but I'll accept they
13 do not.

14 Q. And it doesn't import iPhones or Android phones.
15 Correct?

16 A. I believe that's correct, yes.

17 Q. So your testimony isn't that PNC provides customer mobile
18 devices that have this software on them. Correct?

19 A. Yes, it is. I'm sorry.

20 Q. Sir, your testimony is that PNC supplies iPhones to its
21 customers?

22 A. No.

23 Q. Okay. Your -- the basis that you say PNC meets this
24 system claim is that you say PNC controls the system.
25 Correct?

1 A. In part, yes.

2 Q. And you say that PNC -- or PNC's customers are acting
3 sort of at PNC's behest. Correct?

4 A. I don't recall saying that.

5 Q. I think, sir, you said control and benefit. That was the
6 words you used. Is that right?

7 A. That was in reference to PNC, yes.

8 Q. Yes. Now, PNC doesn't require any customer to deposit a
9 check using mobile deposit. Correct?

10 A. That's correct.

11 MR. LANTIER: Now, if we could put claim 1 of the
12 '432 Patent back up here and we can take the highlighting off.
13 I want to focus on a second limitation. And if we could
14 please blow up the portion of that claim from line 43 to the
15 bottom of the claim at line 48.

16 Q. (BY MR. LANTIER) And we see here it says, wherein the
17 downloaded app causes the customer's mobile device to perform
18 additional steps. Do you see that?

19 A. Yes.

20 Q. And the last step is the checking-for-errors step.
21 Correct?

22 A. That's correct.

23 Q. So the customer's mobile device has to perform the
24 checking for errors. Correct?

25 A. For literal infringement, yes.

1 Q. Yes. For literal infringement, that's what the claim
2 says. Correct?

3 A. For literal infringement, yes.

4 Q. Now, you told the jury that PNC operates servers.
5 Correct?

6 A. In part, yes.

7 Q. And we -- you call those mobile back-end servers in your
8 report. Is that right, sir?

9 A. I believe that's one of the terms I used.

10 Q. These are what are called server computers. Correct?

11 A. Yes.

12 Q. They are not mobile devices. Correct?

13 A. That is correct.

14 Q. You can't hold them in your hand. Correct?

15 A. Depends on the size of your hand, but I think that's
16 correct.

17 Q. And you know that these servers for PNC are located in
18 Greenfield, Virginia. Correct?

19 A. I believe that's where the majority of them are, yes.

20 Q. And PNC's server is where image quality analysis is
21 performed. Correct?

22 A. That's imprecise.

23 Q. Okay. Sir, could you turn in your binder to tab 1,
24 which is your own expert report?

25 A. Yes.

1 Q. And turn to paragraph 143, please.

2 A. I'm there.

3 Q. Does paragraph 143 of the expert report refresh your
4 recollection that image quality analysis is performed at the
5 mobile deposit server?

6 A. That's one place it's performed.

7 Q. Sir, you have not offered an opinion that the IQA, image
8 quality analysis, itself is performed anywhere other than at
9 the server. Correct?

10 A. I disagree.

11 Q. If we could -- and paragraph 143, again of your expert
12 report, sir, does that refresh your recollection as to where
13 image quality analysis is performed?

14 A. That is one place where it's performed. That is -- I
15 agree with you.

16 Q. So that did refresh your recollection. Is that right?

17 A. I didn't have any loss of recollection. Your question
18 was imprecise.

19 MR. LANTIER: Your Honor, with your permission,
20 could we publish paragraph 143 to the jury?

21 THE COURT: I'll allow that.

22 MR. LANTIER: Could you please call up paragraph 143
23 of Doctor Conte's report?

24 Q. (BY MR. LANTIER) Do you see it says that the RSS credit,
25 et cetera, flow is used to submit the captured check images to

1 the mobile deposit server software where image quality
2 analysis is performed?

3 A. That's correct. And I agree with that.

4 Q. And you didn't say, which is one place where image
5 quality analysis is performed. Correct?

6 A. Nor did I say the only place, but correct.

7 Q. Now, if we could turn to DDX 226, which is at tab 5.

8 A. Would you mind if I use my larger version?

9 Q. Sure.

10 A. It's my 58-year-old eyes. Okay.

11 Q. Now, another thing --

12 THE COURT: Let me remind both of you gentlemen,
13 it's important that we not have two people talking at one
14 time. Some of it just seems to be lingering comments that
15 trail off while the other one starts. But when there are two
16 people talking at one time, we don't get an accurate record,
17 and it's just not fair to the court reporter who's charged
18 with protecting the record here.

19 So make sure that you're not talking or mumbling or
20 making noises while the other one is talking. All right?

21 MR. LANTIER: Yes, Your Honor.

22 THE WITNESS: Yes, Your Honor.

23 THE COURT: Okay. Let's go forward.

24 MR. LANTIER: Could we blow up the upper left-hand
25 corner of that document, please?

1 Q. (BY MR. LANTIER) Now, Doctor Conte, one other opinion
2 you offered was that the diamond that says, within RDC
3 velocity limits, constitutes checking for errors on the mobile
4 device. Correct?

5 A. That is correct.

6 Q. That check occurs prior to taking any image of the check.
7 Correct?

8 A. That is correct.

9 Q. And, in fact, if that test returns a negative result, a
10 no, PNC's mobile system will not allow the customer to take a
11 picture of the check. Correct?

12 A. That's correct.

13 MR. LANTIER: If we could, please, turn to the '571
14 Patent.

15 THE WITNESS: What tab is that? I'm sorry?

16 Q. (BY MR. LANTIER) That will be at tab 2 in your binder.
17 I'm sorry. Not tab 2. It is at tab 3. Just let me know when
18 you're there.

19 MR. LANTIER: If we could call up claim 1.

20 THE WITNESS: I'm there.

21 Q. (BY MR. LANTIER) Okay. Now, let me start with version
22 4.20.1. Are you with me?

23 A. Yes.

24 Q. Okay. So this is the version of PNC's mobile app that
25 was in use at the time that you issued your infringement

1 opinions in this case. Correct?

2 A. It was in use. It was not at issue, but yes.

3 Q. It's not at issue in this case.

4 A. That's correct.

5 Q. The asserted '571 patent claims require auto-capture
6 features. Correct?

7 A. The term auto-capture is not present in the claim.

8 Q. Do the claims of the '571 Patent require auto-capture
9 features?

10 A. Generally, yes.

11 Q. Sir, do the claims of the '571 Patent require
12 auto-capture? Yes or no.

13 A. Yes.

14 Q. And version 4.20.1 does not in its default configuration
15 infringe the '571 Patent. Correct?

16 A. In its default configuration, no.

17 Q. PNC disabled the auto-capture feature in version 4.20.1.
18 Correct?

19 A. That's correct.

20 Q. And you're not aware of any way for a PNC customer to
21 configure version 4.20.1 to enable auto-capture. Correct?

22 A. I'm not aware one way or the other, that's correct.

23 Q. PNC had to change code in order to disable auto-capture
24 for version 4.20.1. Correct?

25 A. Yes, that's correct.

1 Q. Okay. Now could we please talk about the old PNC app,
2 the one you are accusing of infringement here?

3 A. I would love to.

4 Q. And we can stick with claim 1. I'd like to focus in
5 specifically on one portion of claim 1, which is the
6 image -- where it says, that will monitor an image of the
7 check in a field of view of a camera of a mobile device with
8 respect to a monitoring criterion, and then here's the
9 important part for our purposes, using an imaging monitoring
10 and capture module of the mobile device. Do you see that?

11 A. I do.

12 Q. And you testified about this on direct, but you
13 understand that the Court has construed this term to be what's
14 known as a means-plus-function claim term. Correct?

15 A. I do.

16 Q. And you talked about what structure is required under the
17 means-plus-function construction of the Court. Correct?

18 A. I did.

19 Q. And you'd agree with me, sir, that PNC does not infringe
20 this claim unless its system includes the structure disclosed
21 in the specification or a structure equivalent. Correct?

22 MS. GLASSER: Objection, Your Honor. I think he's
23 sort of saying what the Court's jury instructions are going to
24 address for a means-plus-functions claims.

25 THE COURT: What's your response, Mr. Lantier?

1 MR. LANTIER: Your Honor, I don't know how this
2 expert could have applied the law without the basic of what's
3 required to meet or infringe a means-plus-function claim.

4 I was just asking him what's required -- I was asking him
5 to confirm his understanding that in order to infringe a
6 means-plus-function claim, you must show that the accused
7 product contains the claim structure or its structural
8 equivalent.

9 MS. GLASSER: May I respond, Your Honor?

10 THE COURT: Briefly.

11 MS. GLASSER: And that's the issue. That exact
12 phrasing I think will -- I don't know what the Court's
13 instructions will ultimately be, but I think they very well
14 may not do that phrasing and Mr. Conte's report doesn't do
15 that exact phrasing, either. So it's a legal issue how
16 exactly you would phrase that, and I don't think ultimately
17 that's what it's going to be.

18 THE COURT: Well, whatever the Court's exact
19 instructions to the jury are at the close of the evidence will
20 control over anything that's said during the trial, and this
21 does relate directly to the infringement issue for which
22 purpose this witness has been called.

23 I'm going to permit it. I'll overrule the objection.

24 MR. LANTIER: Now, if we could, please, call up PDX
25 5.103.

1 Q. (BY MR. LANTIER) You remember, Doctor Conte, that when
2 you were speaking with Ms. Glasser, you testified about
3 monitoring criterion that you said were recited in the '571
4 Patent. Correct?

5 A. Yes.

6 Q. And you said that you found each of those criterion to be
7 used by PNC. Correct?

8 A. I did.

9 Q. You did not testify about the order in which PNC
10 evaluates any of those criterion relative to one another.
11 Correct?

12 A. That's correct, I did not.

13 Q. And you didn't discuss what steps in particular the
14 software goes through in order to monitor any of those
15 criteria. Correct?

16 A. I don't think that's quite accurate.

17 Q. And you did not use the term 'structurally equivalent' in
18 your direct testimony. Correct?

19 A. With respect to what? I'm sorry.

20 Q. With respect to this claim element, sir?

21 A. I'm sorry. I think I've lost the plot. Which claim
22 element was this?

23 Q. This is the --

24 MR. LANTIER: If we can go back to claim 1 if we
25 still have that.

1 Q. (BY MR. LANTIER) This is the image monitoring and
2 capture module requirements. You remember that, sir?

3 A. The prior PDX 5.103 was never displayed to me.

4 Q. Yes. And I apologize, sir. I was hoping we could call
5 it up, but we didn't so I just didn't want to take everyone's
6 time. If we can call it up, we'll show you what it was.

7 But what it was was a chart where you had on the one side
8 of it a series of check boxes.

9 I don't think this was it. If we go to maybe the next
10 slide.

11 It was a series of check boxes. You said on the one hand
12 that there were these monitoring criterion set forth in the
13 patent and then PNC used those monitoring criterion. Correct?

14 A. It's a little further on if that helps.

15 Q. Okay. Maybe I may have miswrote it.

16 A. Try 113. Perhaps that's it.

17 Q. Oh, that might be it. Thank you, sir.

18 MR. LANTIER: Back up to 113.

19 THE WITNESS: Oops. Okay. Maybe two more back. I
20 think by 20 questions, we'll get this.

21 THE COURT: Just check your materials, Mr. Lantier,
22 and when you're ready, ask a real live question.

23 MR. LANTIER: Understood, Your Honor. I think we
24 can move on.

25 Q. (BY MR. LANTIER) Now, you remember, Doctor Conte,

1 throughout your testimony today, you referred to PNC's source
2 code. Correct?

3 A. That's correct.

4 Q. And you said that you analyzed the source code in order
5 to locate and determine whether PNC was meeting the elements
6 of the different claims. Correct?

7 A. That is correct.

8 Q. You've seen no evidence that PNC ever had access to
9 USAA's source code. Correct?

10 A. That's correct.

11 MR. LANTIER: No further questions.

12 THE COURT: You pass the witness?

13 MR. LANTIER: I pass the witness, Your Honor.

14 THE COURT: Is there redirect, Ms. Glasser?

15 MS. GLASSER: Yes, Your Honor.

16 THE COURT: All right. Proceed with your redirect.

17 REDIRECT EXAMINATION

18 BY MS. GLASSER:

19 Q. Good afternoon again, Professor Conte.

20 A. Good afternoon.

21 MS. GLASSER: May I proceed, Your Honor?

22 THE COURT: You may proceed.

23 Q. (BY MS. GLASSER) So the very first topic that opposing
24 counsel raised with you was the work you've done over the past
25 19 years, and he asked you about your total compensation over

1 that time period.

2 Can you give us a rough sense of all of the different
3 types of work that you've done over that time period and to
4 the range of different law firms and clients that you've
5 worked with without naming the particular matters but just to
6 give the jury some context?

7 A. Let's see. I've worked on over 60, six zero, matters.
8 I've worked for at least 10 different firms. And as I said
9 before, I've represented both defendants and plaintiffs.

10 Q. And when you get called upon about a potential expert
11 engagement like you're working on here, do you have the
12 opportunity to take a careful look at what the allegations are
13 in the case so that you can decide whether or not you agree
14 with the position of the party who's seeking to retain you?

15 A. I always do that, yes. And if I do not agree, then I say
16 find someone else.

17 Q. Let's turn now to the '681 Patent. Opposing counsel
18 asked you a few questions about presenting the photos after
19 the photos are taken. Do you recall that?

20 A. I do.

21 Q. And, now, I think counsel spent the bulk of the time
22 going through and showing that if somebody wants to, they can
23 present an image and then take the other image and present it
24 in that fashion. Is that right?

25 A. That's correct.

1 Q. And during your direct examination, did you, in fact,
2 explain exactly that--that the front and back images can be
3 shown either sequentially as in the PNC system or
4 simultaneously?

5 A. I did.

6 Q. And can you remind the jury about -- I know you have two
7 opinions on that, both literal and doctrine of equivalents,
8 but first let's go through your doctrine of equivalents
9 opinion on that.

10 A. Okay. So the doctrine of equivalents opinion is that PNC
11 system achieves the same result regardless of the order that
12 the photos are presented after they are taken whether or not
13 they are interlaid (ph).

14 Q. And the important thing is that in the claim is the word
15 after. So the important thing is that the photos are
16 presented, each of them, after the photo has already been
17 taken. Correct?

18 A. That's correct.

19 Q. As opposed to just being shown visibly right up front and
20 then not for the customer to approve afterwards?

21 A. That's correct.

22 Q. Okay. And how is that done and what is the result in the
23 system for PNC?

24 A. So in PNC's system, that's done by, again, taking the
25 photo, then presenting it to the user so that they can approve

1 it or not to determine, you know, whether or not it's a good
2 image, and they do that both for the front and the back. And
3 they're presented after they're taken to approve again,
4 whether it's a good image or not.

5 So the end result is that PNC servers get a higher
6 quality image by virtue of presenting it to the user.

7 Q. And I just, for the sake of clarity, wanted to have you
8 show the jury the code that you've looked at, again to support
9 both your literal and doctrine of equivalents opinion on that
10 issue.

11 MS. GLASSER: Could we please have slide 69?

12 Q. (BY MS. GLASSER) And can you remind us here -- again,
13 this is where you explain that ultimately both images are
14 presented after they're taken. Correct?

15 A. That is correct.

16 Q. And I think actually if we walk back to the beginning of
17 this field, first you show just the front of the check.
18 Right?

19 A. That's correct.

20 Q. And can you explain to us how the code in PNC's system
21 matches up literally?

22 A. So what happens here, and let me see if I can do this, is
23 it comes into this routine, and if what it's doing is the
24 front of the check, it does this, retry instruction text set
25 visibility view visible. And that's what creates this -- this

1 screen.

2 And then if -- you see that it's working off this 979, if
3 doc type is front check. So if it is the front check, it does
4 this. Else, if it's the back, it will do this. So else if
5 it's the back of the check, it will present the back of the
6 check.

7 Q. And ultimately in the PNC system, both images are taken.
8 Correct?

9 A. That is correct.

10 Q. And both are presented to user after they're taken.
11 Correct?

12 A. Yes, they are.

13 Q. Let's turn then to the topic of the '432 Patent.
14 Opposing counsel asked you a number of questions about the
15 checking-for-errors element. Do you recall that?

16 A. I do.

17 MS. GLASSER: Could we have slide 52, please? I'm
18 sorry. Actually slide 54 first, please.

19 Q. (BY MS. GLASSER) And now, in this element, the claim
20 requires that there be a step of checking for errors on the
21 mobile device before the submitting step. Correct?

22 A. That's correct.

23 Q. Does the claim say anything to preclude the server also
24 participating in error checking as well?

25 A. No, the claim does not preclude the server from

1 participating.

2 Q. And how do we know from the source code that we're
3 looking at on the screen that there is error-checking going
4 on, specifically on a mobile device itself?

5 A. Because it says remote deposit error code, and then it's
6 checking what the error codes are.

7 Q. And each of the ones highlighted on the right side are
8 errors that are being checked on a mobile device. Is that
9 correct?

10 A. That's correct.

11 Q. And then this is the actual source code itself.

12 MS. GLASSER: But if we could go to slide 252,
13 please.

14 Q. (BY MS. GLASSER) And before we focus on the slide
15 specifically, how do we know -- in addition to the code, how
16 do we know, just from looking at the mobile device screen
17 itself, that the mobile device itself is checking for errors?

18 A. Well, we know because the mobile device is displaying a
19 message that an error occurred.

20 Q. And we have one example of that here on slide 52. Is
21 that right?

22 A. That's correct.

23 MS. GLASSER: And if we could go back to slide 54.
24 54 and 55.

25 Q. (BY MS. GLASSER) Can you give us examples of the some of

1 the other displays that pop up on the mobile device itself
2 after the mobile device is checking for each of these listed
3 errors?

4 A. Sure. So the first one is validating the amount. That's
5 the amounts don't match. The next that it would pop up a
6 message for is that the front image is not clear. And then
7 there's a set of pop-ups with respect to both images. And
8 there it would present images not clear, pop-up to the user
9 and ask them to retake the photos.

10 Then there are two error checks that see if the
11 endorsement is missing. And if it is missing, it will ask the
12 user to retake the photo of the back of the check.

13 And then, finally, if there are duplicate checks, it's
14 just going to say you're out of luck, you're trying to submit
15 a duplicate check.

16 Q. Thank you, Professor Conte. And then if we could briefly
17 touch upon the '571 Patent as well.

18 MS. GLASSER: If we could put up one of the slides
19 of the claim just to orient ourselves. How about slide 121?

20 Q. (BY MS. GLASSER) And this is your slide, but this is the
21 exact language from the patent claim. Correct?

22 A. That is correct.

23 Q. Now, opposing counsel asked you a question about whether
24 you had presented testimony about the order among all those
25 different monitoring criteria on the PNC system. Do you

1 recall that?

2 A. I do.

3 Q. And just to refresh the jury, you testified that PNC
4 actually uses not just one of the monitoring criteria listed
5 in the '571 Patent specification but all of them. Correct?

6 A. That is correct.

7 Q. Does the patent claim itself require in any way that
8 those monitoring criteria be analyzed in a particular order
9 within them?

10 A. No. All the patent says is, with respect to A singular,
11 monitoring criteria.

12 Q. And then does PNC actually dispute, based on the
13 materials you saw, that it uses the monitoring criterion?

14 A. They do not.

15 Q. Thank you, Professor Conte.

16 MS. GLASSER: I pass the witness, Your Honor.

17 THE COURT: Is there further cross-examination, Mr.
18 Lantier?

19 MR. LANTIER: No further cross, Your Honor.

20 THE COURT: All right. Doctor Conte, you may step
21 down.

22 THE WITNESS: Thank you, sir.

23 THE COURT: You're welcome.

24 Plaintiff, call your next witness.

25 MS. CARSON: Plaintiff calls Mr. Alexander

1 Goodstein, who is a PNC manager and was also a corporate
2 designee on various topics related to the accused PNC Mobile
3 Deposit System. And we'll be calling him via video
4 deposition.

5 THE COURT: All right. Proceed with the witness by
6 deposition.

7 ALEXANDER GOODSTEIN, SWORN, BY VIDEO DEPOSITION,

8 Q. Mr. Goodstein, you're employed by PNC. Is that correct?

9 A. Yes, that is correct.

10 Q. You've been designated to speak on behalf of PNC as to
11 various topics relating to the lawsuit with USAA. Is that
12 correct?

13 A. That is correct.

14 Q. Now, at some point, PNC decided to implement mobile
15 remote deposit capture. Correct?

16 A. Correct.

17 Q. When did that decision -- when was that decision made?

18 A. The decision was made in, I believe it was 2010 and went
19 live in 2011.

20 Q. When did PNC begin to use the Mitek system?

21 A. I believe it was in 2011, but I do not know the specific
22 date to that one.

23 Q. Did you analyze whether there are any third-party
24 intellectual property that was covered -- that covered the
25 MRDC system you launched in 2016?

1 A. I rely on our legal counsel and other members of PNC to
2 be able to determine whether or not there is any -- any patent
3 technology or anything like that that could be involved.

4 Q. Did you, yourself, determine whether PNC was infringing
5 anyone's intellectual property when it launched its
6 auto-capture version of MRDC?

7 A. I am not a patent expert, so I cannot determine whether
8 or not we would be infringing on anything like that.

9 Q. All right. You've been designated to speak on behalf of
10 PNC's position regarding USAA's patents in this --

11 A. I don't --

12 THE COURT REPORTER: I need the full question. Hold
13 on. Patents in?

14 Q. -- this proceeding today. Correct, sir?

15 A. I don't believe I was selected as a PNC representative to
16 speak specifically about the patents or patent law.

17 Q. When is the first time you reviewed USAA's patents?

18 A. I was made aware of them at the beginning of the -- this
19 current lawsuit. I did not review them in full detail.

20 Q. Have you ever reviewed them in full detail?

21 A. No. I am not an expert in patents, patent law, being
22 able to read patents. There's a lot of language in those that
23 I do not truly understand.

24 Q. After reviewing the American Banker article and speaking
25 to NCR and Mitek, were you concerned at all that you may be

1 infringing the intellectual property of the United States
2 Services Automobile Association?

3 A. After that meeting, I believe we were at a place where we
4 felt comfortable with continuing to use the auto-capture
5 functionality.

6 Q. Do you remember if you felt comfortable or uncomfortable
7 after that meeting you had with NCR and Mitek?

8 A. I -- I do not remember. The meeting was four years ago.

9 MR. STONE: I don't believe this was consistent with
10 the run sheets.

11 THE COURT: Just a moment. What is your objection,
12 Mr. Stone?

13 MR. STONE: This is not consistent with the run
14 sheets and designations that the Court has previously reviewed
15 and approved. This includes some testimony that is not in the
16 run sheets that I believe have been presented to the Court for
17 review.

18 THE COURT: Well, I've reviewed designations and
19 counterdesignations where the parties are in disagreement.

20 MR. STONE: Yes.

21 THE COURT: I haven't previewed the entirety of the
22 deposition.

23 MR. STONE: Understood, Your Honor. But the ones we
24 had to provide you, this is now not consistent with the ones
25 that --

1 THE COURT: Let me ask opposing counsel.

2 Is there some confusion about this material? Is there a
3 possibility that it includes testimony that wasn't disclosed
4 to the other side? What's your reaction to Mr. Stone's
5 objection?

6 MR. SHEASBY: We have no reason to believe that is
7 the case, but I have a proposal which is we can play another
8 video, and I can sidebar with Mr. Stone when that other video
9 is being played to determine what his concern is, Your Honor.

10 MR. STONE: If I could just see the run sheet that
11 they have to go with this, it may just be a single question,
12 Your Honor. I don't know if there's more or less because I
13 have the run sheets that we were given earlier.

14 THE COURT: I really don't like these interruptions.
15 It disrupts the jury's ability to follow the testimony and to
16 hear a clear narrative. Let's see if we can't get to the
17 bottom of this right now.

18 MR. STONE: Just this question, that's fine, Your
19 Honor. Let's proceed. Thank you.

20 THE COURT: All right. Then I'll consider the
21 objection's withdrawn. I'll charge the time for that
22 objection to the Defendant. Let's continue with the witness
23 by deposition.

24 Q. In 2017, did anyone at PNC do anything whatsoever to
25 investigate whether it was using the intellectual property of

1 USAA?

2 A. I cannot speak for every single person at PNC if they did
3 an investigation into the USAA claims.

4 Q. I asked you whether you know of anyone.

5 A. I do not know of anyone.

6 Q. Now, when you joined PNC in 2009, PNC had a form of
7 internet deposit that used specialized check scanners that
8 were given to customers. Correct?

9 A. Yes, I believe so.

10 Q. As the head of MRDC at PNC, you do not consider that an
11 acceptable alternative to mobile remote deposit capture.
12 Correct?

13 A. They are not the same technology in my mind.

14 Q. Do you know whether PNC's business would be viable if it
15 couldn't offer MRDC?

16 A. I -- I don't think I could speak to all PNC dealings of
17 whether or not it would be viable, but PNC's mobile deposit is
18 only a small portion of the many, many products that PNC
19 offers.

20 Q. Why would it be still viable?

21 A. Customers still have many other channels to be able to
22 make a deposit.

23 Q. Do you believe that the PNC auto-capture system doesn't
24 perform the function of automatically focusing and then
25 capturing the image of the check?

1 A. I believe it does a level of focusing and eventually
2 captures an image in one way or another.

3 Q. Fair point. When you press the shutter button, the image
4 is saved in a file format.

5 A. Correct.

6 Q. That's capture. Correct?

7 A. That -- that would be a version of capture, yes.

8 Q. Now, at some point in time, you were instructed to alter
9 the application. Correct?

10 A. Yes. There was a period in time where we entered
11 discussions to determine -- to make changes to the mobile app.

12 Q. What you and your managers did was -- you did three
13 things. The first thing you did was you -- you, quote,
14 disabled auto-capture. Correct?

15 A. Correct.

16 Q. And you understand that the auto-capture source code is
17 still in the application itself and on your server, and if
18 it's configured, it can be used again. Correct?

19 A. I, again, have not looked at the source code, but my
20 understanding would be, yes, that that is still in the source
21 code.

22 Q. And so at any time, for example, after this lawsuit is
23 filed, PNC has the ability just by reconfiguring -- setting
24 out a new configuration file to activate auto-capture again.
25 Correct?

1 A. If a decision were made at any point to turn it back on,
2 whether it would be now or after the lawsuit or ten years from
3 now, yes, it could be done based on how the code is
4 implemented today.

5 Q. Now, the next thing you did was that you removed customer
6 views of photos before sending. Correct?

7 A. That is correct.

8 Q. Exhibit 14 is a United States patent to USAA entitled
9 8,977,571. And it says on lines 3 beginning, it says, the
10 monitoring criteria may be based on one or more of light
11 contrast on the image, light brightness of the image, position
12 of the image, dimensions, tolerances, character spacing,
13 skewing, warping, corner detection, and MICR (magnetic ink
14 character recognition) line detection, as described further
15 herein. Do you see that passage here?

16 A. Yes, I do.

17 Q. Those are the criteria that PNC's mobile auto-capture
18 system was using to evaluate check quality. Correct?

19 A. I believe it was using some of these details, yes.

20 Q. And for consumers to use the MRDC system, they have to
21 comply with the rules and procedures that PNC sets out.
22 Correct?

23 A. Customers need to agree to an online banking disclosure,
24 as well as a mobile bank -- I'm sorry -- a mobile deposit
25 terms and conditions.

1 Q. Exhibit 19 is a Futurion report. This is a report you
2 evaluated as part of managing mobile remote deposit capture at
3 PNC. Correct?

4 A. Yes. I believe I read through it.

5 Q. So why don't we turn to page 3 of that document. It
6 says, auto-capture should be viewed as a must-have feature for
7 top financial institutions. Do you see that?

8 A. Yes, I do see that here.

9 Q. Right. And my understanding is that you were aware that
10 that -- those statements were being made in the industry.
11 Correct?

12 A. Yes. I'm aware that that statement was being made.

13 Q. And you still actually have auto-capture in your source
14 code. Correct?

15 A. I have not reviewed the source code, but I believe that
16 it is still in my text source code.

17 Q. And the document we're looking at, Exhibit 21, this is
18 feedback relating to the new version of the mobile deposit
19 function that PNC instituted that didn't have auto-capture.
20 Correct?

21 A. Based on the dates here, this would be for versions
22 4.20.1 and 4.21.

23 Q. Exhibit 27 is a document entitled Notice of Deposition of
24 PNC Bank. Do you see that, sir?

25 A. Yes, I do.

1 Q. And if you look at topic No. 9 it says--and topic No. 9
2 is on page 12--the complete basis for why PNC contends it does
3 not infringe the USAA patents-in-suit. Do you see that?

4 A. I do see that here, yes.

5 Q. Does this refresh your recollection that you've been
6 designated on topic 9 which is the complete basis for why PNC
7 contends it does not infringe the USAA patents?

8 A. Yes, it shows that I'm listed to be the representative
9 for topic number 9.

10 Q. You're senior manager relating to the mobile remote
11 deposit capture system. Correct?

12 A. Yes, I am.

13 Q. You told -- you testified under oath you looked at the
14 patents.

15 A. In the past.

16 Q. Would it be fair to say that you don't know for sure one
17 way or another whether PNC infringes the patents-in-suit?

18 A. I, again, am not a patent expert so, because of that,
19 I -- I can't make a comment of whether or not I know if PNC is
20 infringing on the claims by USAA.

21 Q. And you're PNC's corporate representative on the complete
22 basis for why PNC contends it does not infringe the USAA
23 patents-in-suit. Correct?

24 A. That is what is listed as the designation, yes.

25 Q. Did PNC develop the technology for its mobile deposit

1 feature in-house all by itself?

2 A. No, PNC did not develop in-house -- well, the technology
3 in-house by itself.

4 Q. Where did PNC get the technology from?

5 A. PNC purchases the technology from third-party vendors.
6 Prior to 2017, we were utilizing a vendor named Fundtech.
7 It's also known by D&H, Finastra, BankServ, and they utilized
8 software from other vendors as well, such as Mitek. And then
9 in 2017, we started to utilize a software suite purchased by
10 NCR. And at that time, we were utilizing the Mitek mobile
11 deposit server, Mitek's MiSnap, NCR Aptra Passport, and NCR
12 Transaction Gateway.

13 Q. Is NCR a well-known financial technology company?

14 A. Yes, NCR is a well-known financial technology company.

15 Q. Do other banks use NCR technology?

16 A. Yes, other banks use NCR technology.

17 Q. In the course of your work on PNC's mobile deposit
18 feature, have you ever set out to copy USAA's mobile deposit
19 feature?

20 A. No, we have not.

21 Q. In the course of your work on PNC's mobile deposit
22 feature, did you ever look at the mobile deposit feature in
23 any USAA mobile app?

24 A. No, I have not.

25 Q. Why not?

1 A. I'm not a customer for USAA. In order to be able to
2 utilize their app, you have to have a family member or be a
3 current and enlisted member in the military. I've also not
4 looked at any other screens or anything related to the USAA
5 app.

6 Q. In the course of your work on PNC's mobile deposit
7 feature, did you study any USAA patents?

8 A. No, I did not.

9 Q. Was there ever a time when you decided or recommended
10 that PNC should add a capability to its mobile app because
11 USAA is already offering that capability?

12 A. No, I have not.

13 Q. Were you involved in designing and developing version
14 4.20.1 of PNC's mobile app?

15 A. Yes, I was.

16 Q. Are you aware of any reason why removing the auto-capture
17 feature in the PNC mobile app could not have been done earlier
18 than it actually was?

19 A. No, I am not.

20 Q. And are you aware of any reason why removing the feature
21 that showed the image of the check to the customer before
22 uploading the check could not have been done earlier than it
23 actually was?

24 A. No, I am not.

25 Q. Since PNC rolled out version 4.20.1, what trends have you

1 noticed in the number of successful mobile check deposits by
2 PNC's customers?

3 A. So, overall, the -- the total number of deposits has
4 continued to stay strong or even set near records. June 2021
5 was our second highest month that we have ever seen in
6 completed mobile deposits.

7 Q. Do you agree that auto-capture is required in order for a
8 bank to be able to deploy mobile remote deposits at scale?

9 A. No, I do not believe that auto-capture is necessary.

10 Q. Why do you say that?

11 A. Because customers are still able to capture the images of
12 the check utilizing a manual shutter button.

13 Q. Did you ask the engineers who actually built PNC's system
14 whether they accessed USAA's application?

15 A. No, I did not.

16 Q. Did you take any step whatsoever from the time you were
17 aware of USAA's patents, from the time you were aware that
18 Wells Fargo was found to infringe USAA's patents when it used
19 a Mitek system? Did you take any --

20 MR. STONE: Objection, Your Honor.

21 THE COURT: Let's stop the tape, please.

22 MR. STONE: The last two or three questions were not
23 part of what Irell Manella had understood was designated.

24 MS. GLASSER: There is a redaction on that last
25 question.

1 MR. STONE: These are not in the designations they
2 were provided.

3 MR. SHEASBY: They were.

4 MR. STONE: I apologize, Your Honor, for the
5 interruption, but I --

6 THE COURT: All right. Let's get to the bottom of
7 it. What's the deal here?

8 MR. SHEASBY: There's been a mistake. There should
9 be an edited version that should be --

10 THE COURT: Speak up, Mr. Sheasby.

11 MR. SHEASBY: There should be an edited version for
12 this last question and answer. It's the wrong version. The
13 Judge asked us to modify it and we didn't modify it and just
14 no one caught it on the other side.

15 MR. STONE: This was an earlier draft, Your Honor.
16 This whole issue was earlier dropped in the designations we
17 were provided.

18 THE COURT: How much more of this witness'
19 deposition time is pending?

20 MR. SHEASBY: This is the last question, Your Honor.

21 THE COURT: All right. Am I correct that you're
22 going to follow this with another deposition witness?

23 MR. SHEASBY: Yes, Your Honor.

24 THE COURT: Let's stop this, let's go to your next
25 deposition witness, and while that's running, you two

1 gentlemen confer about the situation and I'll take it up with
2 you later. Okay?

3 MR. SHEASBY: Thank you, Your Honor.

4 MR. STONE: Thank you, Your Honor.

5 THE COURT: Let's identify the next deposition
6 witness for the Plaintiff, please.

7 MS. CARSON: And, Your Honor, I'll wait until we
8 resolve that issue to read into the record the time that
9 should be charged for the designations for the witness that
10 was just played.

11 THE COURT: That's fine. I've been keeping a record
12 of the time, including the dead time while we're waiting on it
13 to be loaded up with the sound, so -- but I'm happy to hear
14 your version when the time is appropriate.

15 MS. CARSON: Thank you, Your Honor.

16 THE COURT: Who's our next witness?

17 MS. CARSON: USAA calls Mr. Thomas Trebilcock, who
18 is a PNC executive who is responsible for part of the mobile
19 deposit system, and he was also a corporate designee on topics
20 related to that, and we'll play that testimony via video
21 deposition as well.

22 THE COURT: All right. Proceed with this witness by
23 deposition.

24 THOMAS TREBILCOCK, SWORN, BY VIDEO DEPOSITION,

25 Q. What is your role at PNC relative to mobile deposit?

1 A. So I'm the group product manager for mobile banking in
2 emerging payments as part of retail bank here at PNC.

3 Q. Did you have involvement in the original decision at PNC
4 to launch the accused product?

5 A. We did -- I was part and parcel to making the decision to
6 offer the capability, the mobile capability -- the mobile
7 deposit capability, yes.

8 Q. And were you personally involved in the decision to offer
9 the accused auto-capture release of the remote mobile deposit
10 in the 2016 time frame?

11 A. Yes, I was part of that decision also.

12 Q. Do you consider yourself to be source code proficient?

13 A. Absolutely not, no.

14 Q. Have you read any of the implementation source code for
15 the accused PNC mobile deposit application?

16 A. I have not.

17 Q. Have you read the USAA patents at issue in this case?

18 A. Portions, yes.

19 Q. When did you first review any of the USAA patents?

20 A. I don't know a specific date, but of the portions that I
21 did review and did try to understand, I believe that was in
22 the January or maybe early February time frame of 2021.

23 Q. Now, you've been designated to testify today both as an
24 individual and also as PNC's corporate representative on a
25 number of topics. Correct?

1 A. Yes, that's correct.

2 Q. And one of the topics that your counsel provided to you
3 and told you that you would be the PNC corporate
4 representative on was topic 35, the date on which PNC first
5 reviewed USAA's Deposit@Home or Deposit@Mobile applications
6 and all facts relating to this review. Correct?

7 A. Correct.

8 Q. Now, what was the date on which PNC first reviewed USAA's
9 Deposit@Home or Deposit@Mobile application?

10 A. We have never reviewed the Deposit@Home application from
11 USAA.

12 Q. Exhibit 1 is PNC_0046237. So the document we're looking
13 at now is actually a document that you authored back in --
14 about 10 years ago. Correct?

15 A. That's correct.

16 Q. But what it's showing on the front is not a PNC mobile
17 app, but, rather, the USAA Deposit@Mobile application.
18 Correct?

19 A. I don't know. I mean, this is obviously -- well, I do
20 know and I do recall having gathered this from either a Google
21 search or some publicly-available source. Not having access
22 to the USAA app itself, I mean, even today, I can tell that
23 this is a -- what we would refer to as a mock-up, a cartoon
24 experience that is synthetic. The check is clearly not real,
25 and this is something that I do recall having searched for,

1 artwork that was related to the topic at hand. But I don't
2 have any knowledge of what this might actually look like
3 within the USAA mobile app.

4 Q. And do you have any specific recollection, as you sit
5 here today, of how this USAA Deposit@Mobile image ended up on
6 the front page of the PNC mobile banking document?

7 A. I would have placed it there myself.

8 Q. So in terms of your team at PNC, did you undertake any
9 steps to determine what patents USAA held in the space before
10 PNC launched its accused product?

11 A. Our team would not have -- that would not be something
12 typically that we would do or not. We were not equipped to --
13 I'm not even sure where to go to look for that information.
14 So that's not something that we would typically do.

15 Q. So in terms of what you believed and wrote before PNC
16 launched its accused product, you described the competitive
17 landscape as including USAA. Correct?

18 A. That's correct. That is written on the page.

19 Q. And in terms of PNC's belief and your own personal
20 belief, at the time PNC launched the accused product, that
21 belief was that USAA was first to launch MRDC. Correct?

22 A. At the time, that is my -- that was my understanding.

23 Q. Do you recall what the business case was for PNC
24 launching the auto-capture MRDC in the 2016-2017 time frame?

25 A. I don't recall the business case, and I'm not sure there

1 may have been one. In the normal course of a service or a
2 capability, especially in the digital space that we purchased,
3 there would be a -- you know, a continual product evolution.

4 My suspicion is that this was a kind of a routine update,
5 upgrade, to an existing product that we offered, and this
6 would have been a new capability set against the service that
7 we had been using for -- you said 2016. So, you know,
8 five-plus years prior.

9 Q. But do you recall now what each specific motivation was
10 on the part of PNC for adopting the auto-capture enhancement?

11 A. No. But the motivations that you had mentioned in your
12 prior question, you know, would sound reasonable.

13 Q. And the three that I mentioned were increase first-time
14 capture rate, increase customer adoption, and increase overall
15 deposit success rates?

16 A. Yes.

17 Q. Was there any time between 2016 and the filing of this
18 lawsuit that PNC ever considered removing auto-capture?

19 A. Again, I would say that downgrading a recommended
20 enhancement or version that included a feature would be very
21 unusual. So I don't recall ever having considered that as
22 even an option.

23 Q. So, Mr. Trebilcock, have you ever accessed USAA's mobile
24 app?

25 A. I have not.

1 Q. When PNC implemented mobile deposit, did it copy USAA's
2 technology?

3 A. It did not.

4 Q. Did PNC develop the mobile deposit functionality for the
5 PNC app itself, or did it have assistance from a vendor?

6 A. With the original implementation, we had the assistance
7 of a vendor, and then, subsequently, we developed our own in
8 2016, '17.

9 Q. Do you have any reason to believe that the vendors that
10 supplied PNC with mobile deposit technology copied USAA's
11 technology?

12 A. I have no reason to believe that.

13 Q. To your knowledge, did anyone on behalf of USAA reach out
14 to PNC to discuss licensing USAA's patents?

15 A. I have no knowledge of anyone reaching out to PNC from
16 USAA.

17 Q. Do you think it's important as a bank to avoid
18 infringement of intellectual property belonging to other
19 banks?

20 A. Well, yes. That's -- that's a legitimate concern, and I
21 believe that PNC does attempt to do that.

22 Q. So Exhibit 1 is an email at the top from you to Mr. Kunz
23 from 2009. Correct?

24 A. Correct.

25 Q. And the subject is Re: Forward: When will our iPhone

1 app do this. Correct?

2 A. That's correct.

3 Q. And if you go to the second page, it's an email from a
4 the vice president of PNC with a link stating, Great ideas
5 tend to make so much sense that you wonder why they took so
6 long. Here's another.

7 And then it describes the USAA iPhone app. Correct?

8 A. That's correct, yes. It appears to be a quote from an
9 article, gizmodo.com article. Okay. Yes.

10 Q. And so Mr. Kunz takes this article about the USAA mobile
11 deposit app and he forwards it to you, stating, agree we
12 should pursue this. Correct?

13 A. Yes. That's what he said, in addition to, would pursue
14 with Rege Rennerson (ph), yes.

15 Q. And you understood that when he said, we should pursue
16 this, he's referring to the concept in the USAA iPhone app.
17 Correct?

18 A. That appears to be the case.

19 Q. And you reply, and you actually tell Mr. Kunz, I've seen
20 the app. Correct?

21 A. Yes, that's -- that's what it says.

22 Q. And when you say, I've seen the app, you were referring
23 to the USAA app. Correct?

24 A. I'm not certain, but that is -- that could be the case.
25 I might have seen it in the -- one of the app stores where it

1 was publicly available.

2 Q. Well, let's just be totally clear. So Exhibit 3 is an
3 email you sent about two months after receiving emails
4 regarding press about USAA's mobile deposit application and
5 feedback from a person who said they would love to be able to
6 have the USAA mobile deposit technology at PNC. Correct?

7 A. Correct.

8 Q. And what you're saying to Mr. Arnold two months after
9 that is, Tom Kunz asked that I reach out to you about mobile
10 remote deposit capture. Correct?

11 A. That's correct.

12 Q. And you maintain under oath that you have never looked at
13 any of the USAA mobile deposit features. Is that correct?

14 A. That's correct. I've never looked at the mobile deposit
15 app or any of the features contained within the app other than
16 what -- those that are disclosed publicly in the form of the
17 app stores and any other publicly-available information.

18 Q. Now, at your prior deposition, I believe you said that
19 you didn't think you had heard the words Deposit@Mobile or
20 Deposit@Home until this litigation. Is that correct?

21 A. Yeah, that's correct. I wasn't familiar with the product
22 names that the USAA had applied to its -- to the service. I
23 wasn't familiar with that, with those names.

24 Q. Exhibit 25 is an email from you to Mr. Kunz sent in March
25 2017. Correct?

1 A. Yes.

2 Q. And you state, USAA calls their service Deposit@Mobile.
3 Correct?

4 A. Yes.

5 Q. Does that refresh your recollection that you did know
6 what USAA called its service and that it called it
7 Deposit@Mobile at the time you were launching the accused
8 products?

9 A. It doesn't refresh my memory, but I -- apparently I did
10 know that that was the name at the time. And, again, it is
11 fairly descriptive, so that's not surprising.

12 Q. Would it surprise you to see emails from around this time
13 period in which you also specifically referred to USAA's
14 Deposit@Home trademark?

15 A. No, I guess -- I guess not.

16 Q. In fact, would you be surprised to see -- so I think at
17 your first deposition you said you didn't think you had seen
18 screenshots from the actual mobile app. Does this refresh
19 your recollection that you may, in fact, actually have done
20 so?

21 A. I don't think I was asked did I see any screenshots. I
22 think I was asked had I seen the mobile app. And to
23 that -- to that I would have -- I would confirm again, I did
24 not see the app.

25 Q. Marking as Exhibit 8 PNC EM 923450.

1 And what Mr. Wallach says in his email that was forwarded
2 to you, so USAA has rolled out a new capability in their
3 mobile app. Correct?

4 A. Let me find your reference. Yes, that looks to be the
5 case.

6 Q. And he says, can we do this? If so, how fast could we
7 roll it out? Correct?

8 A. Yes. Yes. I see that.

9 Q. So does this refresh your recollection that in the 2016
10 time frame, you and others on your team were receiving
11 screenshots from USAA Deposit@Mobile users?

12 A. Well, this has nothing to do with Deposit@Mobile, though.
13 This is referring to a service provided by apparently Daon
14 that is a second-factor authentication methodology that it
15 looks to be -- if I'm reading the Nick Hallas from Daon email
16 correctly, this is a service that they are providing to USAA.
17 Again, you know, just taking the -- his comments at their face
18 value.

19 So this looks like a second form of authentication.

20 Q. Do you personally know if anyone at PNC did anything to
21 see if PNC was clear to offer mobile deposit without
22 infringing patents?

23 A. I don't recall specifically.

24 Q. Did you not copy-paste in the USAA terms and conditions
25 into one or more PNC documents?

1 A. I believe I used the USAA and other banks' terms and
2 conditions as source material for my own -- or for awareness.

3 Q. When did PNC first introduce mobile deposit?

4 A. April of 2011.

5 Q. Did PNC design the mobile functionality for the PNC
6 mobile app?

7 A. No. We relied on a vendor solution.

8 Q. Who was that?

9 A. mFoundry.

10 Q. Did mFoundry's solution utilize software from Mitek?

11 A. Yes.

12 Q. Did PNC employees have any role in designing the Mitek
13 software for mobile deposit?

14 A. No.

15 Q. Did you tell mFoundry to look at USAA's app for
16 inspiration in designing mobile deposit for PNC?

17 A. No.

18 Q. Did you tell mFoundry how to design or sequence any of
19 the steps for mobile deposit?

20 A. No.

21 Q. Who was the point of contact with mFoundry about what
22 they should be doing to develop mobile deposit for PNC?

23 A. Me.

24 Q. At the time, what did you understand Fundtech's
25 representation to be?

1 A. Reputable within the industry, and had been a PNC vendor
2 for years prior to 2011.

3 Q. Would you have used them if they had a reputation of
4 stealing other company's intellectual property?

5 A. No.

6 Q. When did PNC first introduce auto-capture?

7 A. I believe late 2016, if memory serves.

8 Q. And did PNC develop the auto-capture functionality
9 itself?

10 A. No, we did not. We relied on a third party.

11 Q. And who was that third party?

12 A. Or, excuse me, a fourth party. Mitek would have been the
13 fourth party to, at the time, both Fundtech and NCR.

14 Q. Was Mr. Wallach part of your team at PNC?

15 A. He was not.

16 Q. Did Mr. Wallach have any role specific to mobile deposit?

17 A. He did not.

18 Q. You said PNC implemented mobile deposit when?

19 A. In 2000 April -- or April of 2011.

20 Q. Was Mr. Wallach a PNC employee at that time?

21 A. He was not.

22 Q. And you said that PNC implemented auto-capture in about
23 2016. Is that right?

24 A. That's correct.

25 Q. Was Mr. Wallach involved in implementing auto-capture?

1 A. He was not.

2 Q. What functionality is shown in the screenshots in Mr.
3 Wallach's email?

4 A. Something to do with authentication, and I think it is
5 a -- it referred to as a one-time pass code or a secondary
6 form of authentication.

7 Q. Is that functionality specific to mobile deposit?

8 A. No, it is not part of mobile deposit.

9 Q. You were shown some documents where people forwarded you
10 articles and things like that. Do you recall that?

11 A. Yes.

12 Q. How frequently do people forward you articles about
13 something someone else is doing in the digital banking space?

14 A. Very frequently.

15 Q. Do people only forward you articles about USAA?

16 A. No, they do not. And nor do they keep their, you know,
17 articles contained to financial services. It's oftentimes
18 about all digital capabilities across several industries.

19 Q. Now, do you try to follow what's happening in the digital
20 banking industry?

21 A. I do.

22 Q. And why do you do that?

23 A. In order to remain aware of what is capable -- what the
24 technology permits, what customers expect, and what is
25 available.

1 Q. Have you ever taken a picture of a check using USAA's
2 mobile app?

3 A. I have not.

4 THE COURT: Does that complete this witness by
5 deposition?

6 MS. CARSON: Yes, Your Honor.

7 THE COURT: Before you announce the next deposition
8 witness, do we have any resolution on the preceding
9 deposition?

10 MR. STONE: I would like to approach, Your Honor.

11 THE COURT: Mr. Stone, please don't interrupt me.
12 When I'm still talking, please be quiet. When I finish, I'll
13 be happy to hear from you.

14 MR. STONE: I apologize, Your Honor.

15 THE COURT: All right. Is there a resolution or is
16 there still an issue?

17 MR. SHEASBY: There is still an issue, Your Honor.

18 MR. STONE: There is still an issue.

19 THE COURT: All right.

20 MR. SHEASBY: I have a proposal actually which is --

21 THE COURT: The two of you approach the bench, and
22 I'll decide if this is appropriate to be discussed in open
23 court or not.

24 (The following was had outside the hearing of the
25 jury.)

1 MR. STONE: Your Honor, the testimony that was
2 played from Mr. Trebilcock was a clear violation of MIL 1A,
3 and it also was a violation of a clear argument and direction
4 from Judge Payne as to how that transcript should be redacted.

5 The redactions which were supposed to remove any
6 reference to the Wells Fargo verdict were not made. They've
7 had the run sheet and had an opportunity to review it. It is
8 clearly an intentional or grossly negligent act to allow the
9 violation to have occurred. It not only referenced the Wells
10 Fargo verdict which the Court has clearly ruled should be out;
11 it also related that verdict to Mitek which, as you know, has
12 been an issue.

13 At this point in light of that violation, the jury has
14 been irretrievably and irreversibly prejudiced by hearing that
15 information, and so PNC Bank moves for a mistrial on the basis
16 of that violation of the MIL.

17 THE COURT: What's the Plaintiff's response?

18 MR. SHEASBY: Your Honor, there was clearly an error
19 in the editing. Neither of us caught it because both of us
20 saw the run sheets this morning. Judge Payne did allow that
21 questioning and answering, but there was a portion of it he
22 did ask to be removed. As soon as we saw the error, we jumped
23 up and spoke over it. I don't think the jury heard anything
24 that was going on at that time.

25 We're not going to play the quote right now. We will

1 meet and confer with them and may recall the witness, but the
2 Judge did approve this quote. He did ask for certain editing.
3 There was obviously an error. Neither party caught it. I
4 completely acknowledge that, Your Honor, but I see no basis
5 to -- to indicate a mistrial.

6 And I don't think the jury heard the quote because we
7 stood up and spoke over it, Your Honor.

8 MR. STONE: Your Honor, the quote, as you know, is
9 both oral and on the screen at the bottom. The jury both
10 heard it and saw it.

11 They -- we have been irretrievably and unfairly
12 prejudiced by this violation. It is one of the most sensitive
13 issues in the case, and both Your Honor and Judge Payne have
14 been very attuned to what he ordered, specific redactions.
15 And those specific redactions were not made and unredacted
16 testimony was presented to the jury. And that is totally
17 unfair to us, very prejudicial, and it can't be --

18 THE COURT: All right, Mr. Stone. I understand your
19 position.

20 Is there a simple way for you to produce for me a written
21 version of what was included in that video deposition that, by
22 the admission of both of you, should not have been?

23 MR. SHEASBY: Yes, Your Honor.

24 THE COURT: I'd like to review the actual text of
25 what was included that, by undisputed error, should not have

1 been included.

2 MR. SHEASBY: I understand, Your Honor.

3 THE COURT: I don't accept that it was malicious. I
4 don't accept, at least at this point, that it was grossly
5 negligent. And I'm going to reserve judgment on the degree,
6 if any, prejudice to the Defendant until I can study the
7 actual language and text of what was played that should not
8 have been.

9 MR. SHEASBY: I understand, Your Honor.

10 THE COURT: If you give me that, I will look at it
11 overnight and I will carry the motion and give you a ruling no
12 later than tomorrow morning.

13 MR. STONE: I will also note, Your Honor, it's also
14 in today's transcript, so the language that was actually heard
15 by the reporter and taken down, either heard or seen.

16 THE COURT: And I don't care whether it comes from
17 the transcript or it comes from a run sheet you-all have
18 exchanged. I want you to meet and confer and hopefully you
19 can agree on what was presented that shouldn't have been and
20 give me the printed text of it for me to review.

21 MR. SHEASBY: Thank you, Your Honor.

22 MR. STONE: Judge Payne made clear what it couldn't
23 be, so I think it should be easy to make that agreement.

24 THE COURT: All right. Then I'll look for that from
25 you-all before we leave today. Now, do we have additional

1 deposition witnesses?

2 MR. SHEASBY: We do have one more deposition
3 witness.

4 THE COURT: Let's get that deposition witness
5 presented.

6 MR. SHEASBY: Thank you, Your Honor.

7 MR. STONE: Thank you, Your Honor.

8 (The following was had in the presence and hearing
9 of the jury.)

10 THE COURT: All right. Ms. Carson, do you have an
11 additional deposition witness for the Plaintiff to introduce
12 to the jury?

13 MS. CARSON: Yes, Your Honor. The next witness will
14 be Mr. Thomas Kunz. He is also a PNC executive, and he was
15 also a corporate designee.

16 THE COURT: Please proceed with this witness by
17 deposition.

18 THOMAS KUNZ, SWORN, BY VIDEO DEPOSITION,

19 Q. Your position is executive vice president of PNC. Is
20 that correct?

21 A. That's correct.

22 Q. And in that capacity, you have responsibility both for
23 business and for technology functions. Is that also correct?

24 A. Not the technology functions. Business functions.

25 Q. You are testifying today as yourself and also as PNC's

1 designated corporate representative. Correct?

2 A. Yes.

3 Q. Now, one of the topics you're designated as PNC's
4 representative is topic 2 concerning all facts relating to
5 PNC's decision to offer the accused system service. Correct?

6 A. Yes.

7 Q. Why did PNC decide to offer a remote mobile deposit
8 application, the accused product in this case?

9 A. Mobile remote deposit is a convenience for our customers,
10 and as I recall, we introduced it in 2011.

11 Q. And did PNC do an analysis of the business and financial
12 benefits to PNC of offering the accused product at the time it
13 introduced it?

14 A. Not to my knowledge on the -- on the benefit side, and we
15 think -- we think of it is a -- a convenience, along with our
16 other ways that a customer can make deposits into our company
17 with this, whether that's direct deposit or physical deposits
18 at a branch, an ATM, or -- or mobile. So that's -- that's
19 sort of how we -- how we thought of it.

20 Q. Do you personally have a view about whether PNC would
21 need significant additional branch infrastructure if it didn't
22 have the accused product?

23 A. I personally do not believe that. I think what we're
24 seeing is there's -- there's many things that go on in a -- in
25 a branch. Deposits are one of those. One of the things you

1 can't do in a mobile deposit is handle cash or multiple
2 checks.

3 It -- so we could -- the volume that we currently do
4 could -- could easily be accommodated by the branches we
5 currently have.

6 Q. Okay. I'm going to ask you -- there's an Exhibit 2 in
7 your folder. This is PNC 0000162.

8 So do you see in this PNC investor document where it
9 states, By migrating routine service transactions to other
10 channels and optimizing the number of branches we have, we
11 expect savings in the hundreds of millions of dollars over the
12 next five years?

13 A. Yes, that is what it states, yes. I see that.

14 Q. And to your knowledge, as PNC's corporate representative,
15 that statement was accurate regarding PNC's expectations in
16 2012. Correct?

17 A. I -- I believe that it was.

18 Q. And to your knowledge, as PNC's corporate representative,
19 that statement is correct today, that PNC can save hundreds of
20 millions of dollars when it migrates routine service
21 transactions to other channels. Correct?

22 A. I don't have anything that would size it to say that it's
23 hundreds of millions of dollars over the next five years.

24 Q. And who at PNC would know the answer to the question of
25 approximately how many branches have been closed and how many

1 teller positions were eliminated by PNC because of its use of
2 the accused product?

3 A. I don't know that -- Ms. Glasser, I don't know that
4 anybody would be able to associate it to the mobile deposit
5 level because we -- to my knowledge, we don't look at it that
6 way.

7 Q. Which elements of the USAA Deposit@Mobile application
8 were used as inspiration for the design effort at PNC?

9 A. To my knowledge, none. This is a service that was
10 provided to us by a vendor and -- and then we integrated and
11 we worked with the vendor to integrate it. BankServ,
12 Fundtech, as I recall, they were referred to at this -- at the
13 time.

14 Q. Do you know how extensive the use was by the PNC
15 engineers of the USAA deposit mobile application in making
16 decisions about how to customize the PNC system?

17 A. To my knowledge, that didn't occur.

18 Q. Did you do anything to investigate that one way or the
19 other?

20 A. I did not.

21 Q. Back in 2017, you were aware that USAA had patents.
22 Correct?

23 A. No.

24 Q. All right. Let's go ahead and view Exhibit 7. Exhibit 7
25 is PNC EM 0416098.

1 Do you recognize Exhibit 7 as an email sent from Chad
2 Ballard to you on May 23rd, 2017 at 2:00 a.m.?

3 A. I recognize that that's what this is, yes.

4 Q. Do you recall learning in 2017 about the USAA mobile
5 remote deposit patents?

6 A. I do -- I do recall reading in 2017 that USAA claimed
7 they had patents, yes.

8 Q. Did you take any steps to try to avoid infringing upon
9 the USAA patents?

10 A. I did not.

11 Q. Sir, did you personally do anything to determine whether
12 the new version of the PNC app, the one that was launched in
13 the spring and summer of 2011, whether that one infringed
14 claims of other USAA patents?

15 A. No, I -- I -- I did not.

16 Q. Do you recall discussing the USAA patents with a senior
17 executive at PNC named Thomas Trebilcock?

18 A. I -- I do recall discussing them with Tom, and -- I -- I
19 just recall talk -- talking to him and mentioning that, you
20 know, that I read it and he read it, too, and that's -- that's
21 the extent of my recollection.

22 Q. And, to your knowledge, did Mr. Trebilcock do anything to
23 try to avoid infringement?

24 A. To my knowledge, no.

25 Q. Okay. Marking as Exhibit 8, PNC EM 484518.

1 And does this refresh your recollection that what you did
2 when you learned about the USAA remote deposit patents, at
3 least from this article, is that you forwarded some
4 information to Mr. Trebilcock and Mr. Foell to let them know
5 about it?

6 A. I don't recall it, but yes, this was what -- that's what
7 this artifact says that I did.

8 Q. And when you had discussions with Mr. Trebilcock and Mr.
9 Foell, did any of the three of you identify any defenses to
10 infringement of the patents referenced in the article?

11 A. I did not.

12 Q. Have you personally investigated whether any viable
13 alternative exists to the USAA patents that do not infringe
14 either USAA patents?

15 A. I have not.

16 Q. Now, Mr. Kunz, you are the PNC corporate designee on
17 topic 8, all viable and non-infringing alternatives to the
18 USAA patents-in-suit. Correct?

19 A. I believe that's correct, yes.

20 Q. Mr. Kunz, you were asked about the decision that PNC made
21 to offer mobile deposit to customers back in 2017. Do you
22 recall that?

23 A. I do.

24 Q. Was that decision driven by cost savings?

25 A. The -- the decision was not driven by cost savings; it

1 was driven by a convenient service that we wanted to offer to
2 customers in addition to the other ways they can make -- make
3 a deposit.

4 Q. When PNC implemented mobile deposit, did it copy USAA's
5 technology?

6 A. It did not.

7 Q. Did PNC develop the mobile deposit functionality for the
8 PNC app by itself?

9 A. No, we worked with a supplier, a company named BankServ,
10 which eventually became Fundtech, as I recall. And
11 they -- they offered the service to us. That's -- that's how
12 we began to incorporate it into our mobile app.

13 Q. To your knowledge, before USAA sued PNC, did anyone ever
14 reach out to PNC on behalf of USAA to discuss a license to
15 USAA's patents?

16 A. They did not.

17 Q. Were you surprised when you learned that USAA had sued
18 PNC?

19 A. I was.

20 Q. Approximately how many mobile deposits a month was PNC
21 handling when it added the auto-capture feature?

22 A. I recall it being around one and a half million a month,
23 in that -- that kind of range.

24 Q. Was PNC struggling to handle those volumes without
25 auto-capture?

1 A. My recollection, we were not.

2 Q. Was it cost prohibitive for PNC to handle those volumes
3 without auto-capture?

4 A. It was not.

5 Q. Now, was auto-capture one of the features that PNC
6 removed when it released 4.20.1 earlier this year?

7 A. Yes, it was.

8 Q. Approximately how many mobile deposits a month has PNC
9 been handling on average since 4.20.1 was rolled out earlier
10 this year?

11 A. About 2.8 million.

12 Q. Is PNC struggling to handle those volumes without
13 auto-capture?

14 A. We are not.

15 Q. Is it cost prohibitive for PNC to handle those volumes
16 without auto-capture?

17 A. It is not.

18 Q. Do you think auto-capture is a must-have feature?

19 A. I -- I think it's a -- a convenient feature that -- to be
20 a bank that -- that competes against some of the largest banks
21 in the United States, you need to have that feature.

22 Q. Do you think it's a must-have feature to have
23 auto-capture in your mobile app today?

24 A. I do not.

25 Q. And why is that?

1 A. I think we're -- we're proving that -- that we're able to
2 handle the volumes and create a good customer experience
3 without it.

4 Q. I'd like you to think back to the 2016 time period, if
5 you might. In 2016, did PNC have the materials, equipment,
6 and know-how to remove the features that were taken out in
7 version 4.20.1?

8 A. Yes, we would have known how to do that in 2016.

9 Q. And is that true at all times in between 2016 and when
10 4.20.1 rolled out?

11 A. Yes.

12 Q. Since the rollout of version 4.20.1, what has happened
13 with the volume of checks being deposited successfully by PNC
14 customers through the mobile app?

15 A. It's -- it's continued the -- the same growth that we saw
16 prior. So we continue to see the number of deposits grow and
17 -- and the number of customers using it grow.

18 Q. And regardless of whether PNC could have made all these
19 changes back in 2016, what we know is that PNC chose not make
20 any of these changes in 2016, 2017, 2018, 2019, and 2020.
21 Correct?

22 A. That's correct.

23 Q. So you testified a moment ago in response to your counsel
24 that PNC knew how to remove all these features way back in
25 2016. Correct?

1 A. We -- I believe I testified to we could have done those
2 in 2016.

3 Q. You also were asked a few questions about USAA and
4 Deposit@Mobile. Do you recall that?

5 A. Yes.

6 Q. You don't know whether the person who was referencing the
7 USAA Deposit@Mobile application in designing the PNC product,
8 you don't know if that person did anything to try to avoid
9 infringement. Correct?

10 A. That -- that's correct.

11 Q. Now, did you or, to your knowledge, anyone at PNC reach
12 out to USAA to determine whether PNC should be paying for its
13 use of the USAA patents?

14 A. To my -- I'm not aware. To my knowledge, no.

15 THE COURT: Does that complete this witness by
16 deposition?

17 MS. CARSON: Yes, Your Honor.

18 THE COURT: All right. Do I understand there's one
19 more deposition witness to present?

20 MS. CARSON: No, Your Honor.

21 THE COURT: There's not. All right.

22 All right. Let's bring up the lights, please.

23 Plaintiff, are you prepared to call your next witness?

24 MR. BUNT: Yes, Your Honor. We would call Mr. David
25 Kennedy.

1 THE COURT: All right. Mr. Kennedy will come
2 forward and be sworn, please.

3 I doubt we will finish this witness today, but we'll get
4 started.

5 If you'll come forward, please, Mr. Kennedy.

6 (Whereupon, the oath was administered by the Clerk.)

7 THE COURT: Please have a seat on the witness stand,
8 sir.

9 MR. SHEASBY: May I distribute binders?

10 THE COURT: You may distribute witness binders.

11 MR. SHEASBY: Thank you, Your Honor.

12 THE COURT: All right, Mr. Bunt. You may proceed
13 with direct examination of the witness.

14 MR. BUNT: Thank you, Your Honor.

15 DAVID KENNEDY, SWORN,
16 testified on direct examination by Mr. Bunt as follows:

17 Q. Mr. Kennedy, could you please introduce yourself?

18 A. Sure. Good afternoon. My name is David Kennedy. I'm a
19 managing director at Berkeley Research Group.

20 Q. Where are you from, Mr. Kennedy?

21 A. Well, from June through October we lived -- my wife and I
22 have lived in a little small town in Western Montana, and we
23 raise and train horses, and then before the snow gets too
24 deep, we get them off the mountain and we have a little place
25 north of town here about 45 minutes we spend the winter.

1 Q. Why are you here today?

2 A. I'm here to calculate a fair amount that PNC should pay
3 for its use of the USAA's patented technology.

4 Q. And would that payment be called a license?

5 A. Yes, it would be a license.

6 Q. And can you tell us, generally, what is a patent license?

7 A. So it gives you the right to use somebody else's
8 property, patented property. It's like a hunting lease; you
9 pay for someone's land to use it. You don't own it, but you
10 can use it. And if you don't pay, you're trespassing; where
11 with patents, if you don't pay, you are infringing.

12 MR. BUNT: Mr. Huynh, if we could have the first
13 slide?

14 Q. (BY MR. BUNT) Mr. Kennedy, could you tell the jury a
15 little bit about yourself, about your background?

16 A. Sure. I went to the University of Georgia, and worked in
17 construction and as a mechanic a couple of different jobs,
18 worked my way through school. I got a degree in accounting
19 and became a certified public accountant.

20 Q. I see that you have IAM 300 on your slide. What does
21 that refer to?

22 A. Yeah. Intellectual Asset Management for the last 10
23 years Has recognized me as one of the world's leading IP
24 strategists.

25 Q. Do you have any real-world experience that makes you

1 uniquely qualified to value patents?

2 A. I do. I've negotiated over 200 license agreements in the
3 real world where I'm at the negotiating table and determining
4 what's going to be paid and what the value of technology is,
5 and I think that helps me do something really important here
6 and that's to put myself in the shoes of the parties and
7 figure out what should be a fair rate that they pay at the end
8 of a negotiation or this case.

9 Q. You have listed on this slide experience working for the
10 Department of Justice. Can you explain that experience?

11 A. Sure. They've hired me on numerous occasions to
12 determine reasonable royalty rates where the U.S. government
13 is using patented technology and they need to pay a royalty,
14 so they help me figure out -- I help them figure out what they
15 should pay to the patentholder.

16 Q. Have you also done work for the Department of Justice as
17 a bank valuation expert?

18 A. I have. They've hired me on numerous occasions to --
19 when the government has to step in to protect depositors, so
20 they'll hire me to value the banks, value deposits, look at
21 the type of revenue, the type of earnings that those assets
22 might earn, and try to resolve a bank that's been taken over.

23 Q. How many banks or financial institutions have you valued
24 for United States government?

25 A. It's over 50.

1 Q. Do you have other banking experience as well?

2 A. I do. I was part of PriceWaterhouseCoopers' Financial
3 Institutions Group, and they are a large international
4 accounting and consulting firm. I was there for seven years
5 and I was part of the financial institution's practice, and I
6 advised clients on the value of institutions and on mergers
7 and acquisitions, what the value of the deposits would be.

8 MR. BUNT: Mr. Huynh, if we can have the next slide.

9 Q. (BY MR. BUNT) Mr. Kennedy, can you tell us who you've
10 done licensing work for?

11 A. These are some people I've done work for and negotiated
12 against; some very large technology companies, but I've also
13 worked for universities and individual patentholders and other
14 companies that have patent portfolios.

15 Q. Have you done any work for Citibank?

16 A. I have. Citibank hired me to design a licensing program
17 for them to make sure they were getting all the royalties they
18 were due from their patents, and to try to license their
19 patents outside litigation.

20 Q. How often do you provide expertise for patentowners like
21 USAA versus accused infringers like PNC?

22 A. It's about 50/50. I'm doing a few cases now with the
23 Department of Justice on the defense side, and I've got a few
24 for patentholders or patentowners like USAA right now.

25 Q. Does the amount you get paid depend on who wins this

1 case?

2 A. No.

3 Q. Have you ever worked with Wilmer Hale, one of the law
4 firms representing PNC?

5 A. I did. One of the first large patent cases was one that
6 Wilmer Hale hired me on as a licensing expert.

7 Q. What materials did you consider in reaching your
8 conclusions?

9 A. All of the materials that we've been seeing in this
10 trial. I've also looked at PNC and USAA internal financial
11 records, analyst reports, publicly available information, and
12 information that -- like emails and studies that the parties
13 conducted talking about the value of this technology.

14 Q. Did you have access to PNC's internal financial
15 information?

16 A. Yes, I did.

17 MR. BUNT: Your Honor, at this point we would offer
18 Mr. Kennedy as an expert on economic analysis, the valuation
19 and licensing of intellectual property, and the calculation of
20 patent damages.

21 THE COURT: Is there objection?

22 MR. STONE: There is not, Your Honor.

23 THE COURT: Without objection, the Court will
24 recognize this witness as an expert in those designated
25 fields.

1 Please continue.

2 MR. BUNT: Your Honor, I'm about to have to move
3 into a different topic and to seal the courtroom. I don't
4 know if you wanted to take a break or if I should continue.

5 THE COURT: Let's continue, Mr. Bunt.

6 MR. BUNT: All right. Then I would ask that we seal
7 the courtroom, Your Honor.

8 THE COURT: Based on counsel's request to protect
9 confidential information, I'll order the courtroom sealed, and
10 I'll direct that all persons not subject to the protective
11 order that's been entered in this case should excuse
12 themselves and remain outside until the courtroom is reopened
13 and unsealed. This will also seal this portion of the
14 transcript.

15 (Courtroom sealed.)

16 MR. SHEASBY: USAA is in compliance, Your Honor.

17 THE COURT: All right. The courtroom is sealed.

18 Mr. Bunt, please continue.

19 MR. BUNT: Thank you.

20 Mr. Huynh -- you're already there.

21 Q. (BY MR. BUNT) How much did PNC -- Mr. Kennedy, how much
22 did PNC benefit from using the product accused of infringement
23 in this case?

24 A. So my analysis shows that from April 2016, when
25 infringement began, through July 27th, 2021, PNC benefited to

1 the amount of \$604,600,000.

2 Q. Why are there no damages for PNC's use of the system
3 before that date?

4 A. So they filed their patents before that date, but
5 Congress doesn't allow a collection of royalties before the
6 patents are actually issued where they start infringing. So
7 they were filed very early on, as you've heard.

8 MR. BUNT: If we can have the next slide.

9 Q. (BY MR. BUNT) Can you describe the impact that PNC's use
10 of USAA's patents had on their business?

11 A. So by having access to their financial records and
12 business records, I was able to see that there's more than
13 900,000 per month of accounts that are using the infringing
14 MRDC technology in 2021, and then the total number of
15 infringing MRDC deposits over the damages period is
16 105,800,000 deposits. And the amount of money that was
17 deposited with those -- that number of deposits was
18 \$55,489,167,000.

19 Q. What's your guiding principle on how much PNC should pay?

20 A. It's the patent statute, and particularly important is,
21 in no event, less than a reasonable royalty for the use made
22 of the invention by the infringer.

23 Q. How did you go about calculating that royalty?

24 A. So the Court asks us to follow the *Georgia-Pacific*
25 factors.

1 Q. And are there 15 of those?

2 A. Yes.

3 Q. And how did you go about that analysis?

4 MR. BUNT: If we could have the next -- thank you,
5 Mr. Huynh.

6 THE WITNESS: Sure. So the first 14 factors are
7 considered and you determine how they impact the negotiation,
8 and we'll go through those. And then the 15th factor is a
9 hypothetical negotiation, and that's assumed to occur at the
10 date of first infringement back in 2016 and 2018 for the two
11 different patent families.

12 Q. (BY MR. BUNT) And why are we talking about the
13 hypothetical negotiation instead of a real one?

14 A. Well, because, as we heard, PNC launched its product
15 without a license to the USAA's patents, so now we are in
16 litigation to figure out what they should have paid.

17 Q. Are there any assumptions that you have to make for this
18 hypothetical negotiation?

19 A. Yeah, there's three very key assumptions, and the first
20 one here you see is that PNC and USAA will reach an agreement.
21 Nobody can walk away, like you can in the real world. So
22 that's something that you have to consider when you're
23 conducting this hypothetical negotiation. And the second
24 thing is PNC and USAA had access to all relevant information.

25 Q. And then how about the third thing?

1 A. PNC and USAA, they have to assume that USAA's patents are
2 valid and they are infringed. So that's an assumption that I
3 have to make in this hypothetical negotiation.

4 Q. And when would this hypothetical negotiation take place?

5 A. In 2016 and 2018 for the two different patent families.

6 Q. What is *Georgia-Pacific* factor No. 1?

7 A. So this asks an expert to consider the rates received by
8 the patentee, in this case USAA, for licensing the
9 patents-in-suit.

10 Q. And do you have to look at how comparable these licenses
11 are?

12 A. Yes. That's critical. You have to decide whether that
13 situation and those parties were comparable to the parties
14 here. There might be a license agreement, but if they're not
15 comparable, then you should not use that to set the rate in
16 this hypothetical negotiation.

17 Q. What approach has USAA taken to licensing its MRDC
18 patents?

19 A. Well, my understanding is their approach is on an
20 institution-by-institution level. Depending on how big a bank
21 is, or how much use they make out of the technology, or how
22 much value they get out of it, they're going to see a
23 different licensing amount. And smaller banks especially
24 would be not as comparable, those kind of agreements, to the
25 larger banks.

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1 Okay. And then the second factor you had here when you
2 were comparing the Wells license to the PNC hypothetical
3 license, what was that?

4 A. So that's -- Wells Fargo was disputing the validity and
5 infringement, and PNC in the hypothetical negotiation cannot.
6 They have to -- we have to assume the patents are valid and
7 they are infringed. So that's a big difference right there.
8 And I've seen that difference in negotiations cause as much
9 of -- from 50 to 75 percent or more premium to be paid if --
10 or discount to be given if the patents are not agreed to be
11 valid and infringed.

12 Q. Is that assumption of infringement and validity something
13 that PNC's damage expert will have to take into account as
14 well?

15 A. He should, yes.

16 Q. All right. And then the third factor you list here.

17 A. So Wells Fargo at the time had -- it was called a consent
18 decree, and it was the Federal Reserve had restricted their
19 growth. They couldn't grow anymore. So they couldn't use
20 this mobile remote deposit capture to add deposits and grow.
21 PNC is able to use it to grow. And so that's a big
22 difference. Wells Fargo didn't get any value of the ability
23 to grow more by getting more deposits. PNC did. So there's a
24 difference there that would need to be factored into that
25 rate.

1 Q. Were there other agreements that USAA entered into that
2 would have been relevant to the hypothetical negotiation?

3 A. Yes; there were two--one with a company I'll refer to as
4 Bremer and another one company called Assurant.

5 MR. BUNT: Mr. Huynh, if we could have that next
6 slide.

7 Q. (BY MR. BUNT) What did you conclude about how the Bremer
8 and Assurant licenses would be used during the hypothetical
9 negotiation?

10 A. So, first, Assurant and Bremer don't have the assumption
11 of validity and infringement. Those were licenses that were
12 voluntarily entered into, so they didn't have to argue about
13 validity and infringement; and PNC, of course, has to assume
14 that. That's the big adjustment that I talked about before.

15 Q. Were Bremer and Assurant competing with USAA?

16 A. No. Bremer and Assurant were not targeting military
17 families, like we know that PNC had that as a targeted
18 consumer base. So they were going after USAA's customers,
19 which that's going to impact the rate. You're going to have
20 to pay more if you're going to compete and go after my
21 customers with my patented technology.

22 Q. By the way, is Assurant a bank?

23 A. No, that's another difference. Assurant is a company
24 that USAA has a long-standing business relationship with, and
25 that generally leads to a lower rate. So that leads to

1 non-comparability, too.

2 Q. What was the other difference you have listed at the
3 bottom of this slide?

4 A. So I believe that PNC received greater financial benefits
5 because of their size and their wide range of products. And
6 we'll go through what those benefits are, but a company like
7 Assurant who's not even a bank, or a company like Bremer who's
8 much smaller, would not be able to get the same kind of
9 overall benefits that PNC is able to get.

10 Q. Do you have a slide on the size differential between PNC
11 and Bremer?

12 A. I do, yes. You can see that PNC is 37 times larger than
13 Bremer from an asset standpoint and 12 times larger than
14 Bremer as far as MRDC accounts.

15 Q. What did you conclude about using these license
16 agreements for the hypothetical negotiation?

17 A. I concluded that they would not be used to set the rate.
18 They would be discussed because they involve the same patents,
19 but the differences are just too great to use this as a
20 benchmark to get to a license for someone like PNC.

21 Q. Did USAA negotiate with other banks?

22 A. There is a couple of others, yes--Dollar Bank and
23 SunCoast Bank.

24 Q. And did those result in a license?

25 A. No. They were negotiating, or offers, but it did not

1 result in a license.

2 Q. And would those offers influence the hypothetical
3 negotiation?

4 A. No. Since they were not completed license agreements,
5 they couldn't be used as comparable license agreements.

6 Q. Were those banks smaller than USAA and PNC?

7 A. They were. I calculated the differences, but it was --
8 they were -- PNC's over 60 times larger than both of those
9 banks, so that impacts any ability to use them as some type of
10 comparable, not to mention that they did not enter into a
11 license agreement; it was just an offer.

12 MR. BUNT: If we can go to the next slide.

13 Q. (BY MR. BUNT) Turning now to *Georgia-Pacific* factor
14 No. 2, can you explain to the jury what that factor is?

15 A. So this is where we do the same thing--we look at PNC to
16 see what kind of licenses they might have entered into, of
17 course not involving the patents-in-suit, but are they
18 comparable enough that they should be discussed at the
19 hypothetical negotiation.

20 Q. And how many patents PNC -- I'm sorry. How many PNC
21 licenses are relevant to your analysis?

22 A. I don't think any are comparable. One is relevant--PNC
23 has indicated they believe it's relevant--is an agreement with
24 NCR.

25 Q. Why do you believe it's not comparable?

1 A. Well, it's not a patent license agreement. It's a
2 software license and a services agreement. We heard them
3 talking about witnesses talking about or documents about how
4 NCR and Mitel [sic] or someone they contract with. So when
5 someone is working for you, that impacts the arms length
6 nature of the transaction. But the main thing is it's a
7 software license, not a patent license.

8 Q. And in your real-world experience of negotiating more
9 than 200 license agreements, have you ever seen a software
10 license like this one be used as a comparable agreement in a
11 negotiation like the one between USAA and PNC?

12 A. Never.

13 Q. Let's turn now to *Georgia-Pacific* factors 3, 4, and 5,
14 and if you could tell the jury, what are those factors?

15 THE COURT: I'm going to interrupt at this point,
16 counsel. I knew when we started with Mr. Kennedy we weren't
17 going to finish him today, but I thought it was important for
18 us to get started with him.

19 We're going to recess for the day at this point, ladies
20 and gentlemen. We'll pick back up with the Plaintiff's direct
21 examination of Mr. Kennedy in the morning.

22 If you will, take your notebooks as you leave the
23 courtroom and leave them closed on the table in the jury room.
24 Please follow all the instructions I've given you about your
25 conduct, including not to discuss the case with anyone,

1 including yourselves. You did a great job being here on time
2 this morning. If you'll do the same thing, we'll target for
3 8:30 in the morning to begin again.

4 I'm going to order the courtroom unsealed and that will
5 reopen the record.

6 (Courtroom unsealed.)

7 THE COURT: And with that, ladies and gentlemen,
8 you're excused until tomorrow morning.

9 (Whereupon, the jury left the courtroom.)

10 THE COURT: Be seated, please.

11 Mr. Kennedy, you can step down.

12 THE WITNESS: Thank you, Your Honor.

13 THE COURT: You're welcome.

14 Ms. Carson, I would like your best information on the
15 updated time splits for these depositions we've had today, if
16 you can give me those.

17 MS. CARSON: Sure, Your Honor.

18 We have the time divisions that we had agreed to with
19 PNC's counsel. So for Mr. Goodstein, it was 7 minutes and 35
20 seconds of designations for USAA and 7 minutes and 33 seconds
21 of designations for PNC.

22 And then for Mr. Trebilcock, there were 8 minutes and 58
23 seconds for USAA and 10 minutes and 33 seconds for PNC.

24 And then for the final one, Mr. Kunz, there were
25 4 minutes and 14 seconds for USAA and 8 minutes and 22

1 seconds for PNC.

2 THE COURT: All right. Thank you for that update.

3 MR. STONE: It's not in the agreement with the times
4 calculated on the run sheets the parties have previously
5 exchanged, Your Honor.

6 THE COURT: And it's not a statement by the Court
7 that I'm going to accept those on their face value. I've been
8 keeping time throughout the process, and some of these
9 deposition witnesses we had fairly material delays while we
10 had problems and I'm going to count that time, too. So the
11 Court is the timekeeper. The Court will enter the appropriate
12 time here. I just wanted the benefit of what Ms. Carson was
13 able to give me for comparison purposes. That's all.

14 MR. STONE: Thank you, Your Honor.

15 THE COURT: All right. Thank you, Ms. Carson.

16 MS. CARSON: You're welcome.

17 THE COURT: All right. Mr. Sheasby, Mr. Stone, do
18 you have the agreed-upon extraneous text from the Trebilcock
19 deposition that we talked about at the bench?

20 MR. SHEASBY: Yes, Your Honor.

21 THE COURT: Is this agreed by both sides?

22 MR. STONE: Yes, it is agreed.

23 THE COURT: All right. If you'll approach and give
24 it to the Courtroom Deputy, I'll consider it overnight and
25 we'll take it up in the morning.

1 MR. SHEASBY: Thank you, Your Honor.

2 THE COURT: Now, we also have a motion to quash with
3 regard to Mr. Morris who was subpoenaed to appear for
4 tomorrow. I'm going to look at that briefing overnight.

5 I need an indication from Defendants, if I do not quash
6 the subpoena, when he would go on in the course of the trial;
7 your best estimate.

8 MR. STONE: My best estimate given right where we
9 are right now is late tomorrow.

10 THE COURT: All right.

11 MR. STONE: I mean, we would obviously accommodate
12 his schedule if we need it. I read his declaration that he
13 filed attached to the motion, and we could take him out of
14 time if necessary, but our plan otherwise would have been
15 probably, given the schedule right now, late tomorrow in the
16 afternoon.

17 MR. SHEASBY: And, Your Honor, if I could just speak
18 to that.

19 Mr. Morris is very upset. He drove out here as soon as
20 he got the subpoena, so he's waiting here for your ruling.
21 The point is that if you order him to appear, he will be
22 available when they call him.

23 THE COURT: I understand. I expect anybody
24 subpoenaed to be available when they're called.

25 MR. SHEASBY: He's not looking to go out of order.

1 He will be prepared to follow your order exactly.

2 THE COURT: All right. Well, I have obviously not
3 had a chance to review the briefing on this since we've been
4 in trial all day. I'll do that overnight and I'll take it up
5 with counsel in the morning.

6 Mr. Morris doesn't need to be here at least this evening.
7 He doesn't need to be here not any earlier than the middle of
8 the day tomorrow. We'll talk in the morning, if he is going
9 to appear live, how to schedule that. We'll make that a part
10 of those discussions.

11 All right. I've already talked to you about submitting
12 updated joint proposals on the charge and verdict form by
13 tomorrow afternoon. And I will trust that you will continue
14 to meet and confer, as you have last night. And, effectively,
15 the majority of those issues can be worked out, but to the
16 extent they're not, I'll be available to take those up in the
17 morning as well.

18 Is there anything else either side is aware of that needs
19 to be raised with the Court?

20 MR. BUNT: Yes, Your Honor. I'd like some
21 clarification from you. I don't want to stray across any
22 rules or guidelines the Court has.

23 Is it -- am I allowed to speak with Mr. Kennedy this
24 evening since he's still during direct? I know Your Honor has
25 previously ruled in another case of mine that once a witness

1 has been passed, then there should be no further
2 communications with their counsel. Since he's still on the
3 stand, am I allowed to speak with him?

4 THE COURT: Is he not fully prepped when you put him
5 on today, Mr. Bunt?

6 MR. BUNT: He is fully prepped, but I'm always happy
7 to talk to my witnesses as much as I can.

8 THE COURT: I'm confident you fully prepped him
9 before he was called today. Now that he started testifying,
10 he needs to be off limits until he's finished testifying.

11 MR. BUNT: I will certainly do that, Your Honor.

12 THE COURT: All right. I hope that provides you
13 some guidance.

14 MR. BUNT: It does, Your Honor.

15 THE COURT: Anything else either Plaintiff or
16 Defendant's aware of that you need to raise with me?

17 MR. STONE: Not from the Defendant, Your Honor.

18 MR. SHEASBY: Your, Honor we're going to get you
19 that bench memo tonight about the patents that are related to
20 the --

21 THE COURT: That's the one Ms. Glasser's mentioned?

22 MS. GLASSER: Yes, Your Honor.

23 THE COURT: Good. I just need a few more things to
24 read.

25 All right. I will see counsel in the morning. I'll be

1 in chambers, as usual, by 7:30, and we stand in recess until
2 tomorrow.

3 MR. SHEASBY: Thank you, Your Honor.

4 (The proceedings were concluded at 6:20 p.m.)
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1 I HEREBY CERTIFY THAT THE FOREGOING IS A
2 CORRECT TRANSCRIPT FROM THE RECORD OF
3 PROCEEDINGS IN THE ABOVE-ENTITLED MATTER.
4 I FURTHER CERTIFY THAT THE TRANSCRIPT FEES
5 FORMAT COMPLY WITH THOSE PRESCRIBED BY THE
6 COURT AND THE JUDICIAL CONFERENCE OF THE
7 UNITED STATES.

8
9 S/Shawn McRoberts 05/10/2022

10 _____DATE_____
11 SHAWN McROBERTS, RMR, CRR
12 FEDERAL OFFICIAL COURT REPORTER
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Shawn M. McRoberts, RMR, CRR
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